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Original Communications.

THE TREATMENT OF APPENDICITIS.—A CONSERVATIVE VIEW.—ILLUSTRATIVE CASES.[1]

By NELSON G. RICHMOND, M. D., Fredonia, N. Y.

There is little doubt that in choosing the above title, or more particularly in reaching the conclusions which the title suggests, much adverse criticism will be aroused. I am perfectly well-aware that there has been no subject more fully or profitably discussed during the last three years than this one—appendicitis. The popular side of the question today is surgical procedure. The record of the operators is a brilliant one. Very many lives have unquestionably been saved, which would have been sacrificed under more conservative methods. Surgery is necessary for very many cases.

The reason for urging a conservative view in the light of the above facts is this: The operators have been so carried away by their own results, that they are led to advise against *all* medicinal measures.

By withholding mechanical treatment and medicinal measures, which should have been resorted to at the proper time, there is little doubt that many cases will require the surgeon to relieve them later on.

What then does A Conservative View of the Treatment of Appendicitis mean? It means active interference with the progress of the cause of the disease. It means removal of the cause. It means going to work *immediately*, with the hope of getting the patient beyond the point of danger by the time the surgeon, who has been watching *his* case, and advising against any interference, is getting ready to operate.

In the treatment of disease, the first thing to be taken into consideration is the cause. The causes, of appendicitis have a direct

1. Read before the Alumni Association of Niagara University, May 2, 1892.

bearing upon the treatment, and, familiar as they are, should be considered in this connection.

They are: (1) The lodgment and impaction of fecal matter in the appendix and cecum, one or both. This is the most common. (2) Hard, indigestible, or foreign bodies, which produce inflammation and sometimes perforation by their pressure. (3) The overloading of the stomach.

Fitz found that fecal concretions comprised forty-seven per cent. of the entire number of cases he had collected; foreign bodies only twelve per cent. of the entire number.

There is a difference of opinion as to the seat of the primary lesion. Some claim it to be the appendix, others the cecum. One says that, in comparison, the cecum plays no part at all. This point is an important one to consider if we take into account two varieties of appendicitis: One, the stercoreal variety; the other, where more acute, inflammatory symptoms seem to arise in the appendix, resulting in early perforation, or possibly gangrene.

How can one consider carefully the above causes, viz., impaction of feces; hard, indigestible, or foreign bodies; the overloading of the stomach,—without at once setting to work to remove them? We doubt not the active, busy practitioner does attempt to remove them first of all. But here is what some of the men we consider as authority say on the subject:

McBurney has a most brilliant record as an operator. His name is in the front rank, associated in the investigation of this disease with Fitz, Senn, Treves, Stimson, Weir, Price, and Keen. The point of tenderness, from one to two inches inside the right anterior superior spinous process of the ilium, on a line drawn from the spine to umbilicus, is now universally known as "McBurney's point." He claims it to be almost a pathognomic sign in the diagnosis of this disease.

McBurney says: "Laxatives should be carefully avoided, and enemas as well, that all peristaltic action may be discouraged."

J. Lewis Smith advises postponing laxatives, or laxative enemata, until tenderness and inflammatory symptoms have subsided by the use of opium and an ice-bag. Afterwards, if indicated, he advises an enema,—calomel or castor oil.

Volz strongly insists upon opium treatment, and warns against the use of cathartics or enemata.

Matterstock cannot caution too earnestly against any attempt to relieve constipation by either cathartics or clysmata.

Keen says nothing about the medical treatment in a paper consulted, but does say this : "I earnestly believe that operation is rightly undertaken when there is persistent pain and tenderness, especially at McBurney's point, with even slightly increased resistance without any tumor, with possibly a slight edema and a moderate fever." He does express himself, however, as condemning operative interference in the mild form of appendicitis. Most of such attacks, he thinks, have been overlooked, or have been called simple indigestion, colic, or some intestinal disorder.

Dr. Pepper advises against the use of laxatives.

Finally, an editorial in the *Medical Record*, commenting on a paper of Dr. Musser, of Philadelphia, says : "Treatment consists of abstinence from food, and absolute avoidance of interference with the state of the bowels."

The above authorities are quoted to show what these men advise concerning laxatives and enemata, and that there is some excuse for the writing of this paper.

Let us now consider the advice of some surgeons more conservative in their views. The name of Treves in England is associated with appendicitis as indelibly as that of Fitz in the United States. His name, moreover, is suggestive of boldness. At a gathering of physicians, the so-called "medical treatment" had produced a smile on the faces of those present. Yet, he says, medical treatment is successful in very many cases ; and to treat all these cases surgically would only lead to disaster. The great majority admitted into the London Hospital during the last ten years recovered under it. No doubt, the epidemic of removal of appendicitis, which had prevailed in some quarters, had been extreme.

He seldom found it necessary to make an incision before the fifth day, and did not consider it advisable to do so then, unless there were urgent symptoms. In most cases it would only be considered after the first week.

This is quite different from the counsel of McBurney, who advises laparatomy within thirty-six hours in case there is no amelioration of symptoms.

In the April 16, 1892, number of the *Medical Record* is a paper of a remarkable experience by Dr. McBurney. He presents the histories of five cases of appendicitis operated upon between December 6 and December 21, 1891, all of them being successful. No one can read the histories of these cases and criticise the wisdom or necessity of operating. They all belonged to the recurrent,

perforative and gangrenous variety. In this same paper he answers the criticisms of Treves and Pepper, some of which I have quoted above.

Treves found, as a result of his investigations in 1889, that there was no cellular investment around the cecum. He also determined that the peritoneum was absent on the post-surface of it. Hence, the terms *peri*typhlitis and *para*typhlitis were misnomers. They have since been discarded. Fortunately, typhlitis, too, has given way to the more suggestive and sensible name *appendicitis*.

Weir only advises operation in serious cases, or cases of frequent recurrence. He admits that the milder lesions of an inflamed or stenosed appendix which the physician meets, the surgeon may be unacquainted with. "For, after all," he says, "laparatomy, however carefully conducted, is an operation of risk."

It was my good fortune to be present at the meeting of the State Medical Society at Albany, February, 1891, when a whole evening's discussion was given to the subject, Appendicitis. The Pathology was ably handled by our own Dr. Mynter, together with Gerster, of New York. The Indications for Early Laparatomy in Appendicitis was the subject of papers by McBurney and Keen. The Technique of Operative Interference in Appendicitis was considered by Stimson and Fowler. The Propriety of and the Indications for the Resection of the Appendix Vermiformis During the Quiescent Stage of Chronic Relapsing Appendicitis was the title of papers by Price and Weir. Dr. Bacon, of New Haven, had confined his operative experience to the abscess stage.

The conclusions reached by those who listened to this discussion might be as varied as the character of the listeners, but the conclusion I arrived at was that the position taken by Dr. Weir or Dr. Bacon was the one to follow in everyday practice.

Dr. Bacon had operated on over forty cases in the abscess stage, losing only two. Imagine, if you can, the number saved the operation, from which these forty were taken, and you get an idea of the actual percentage of recoveries from this conservative method.

Dr. Weir, as stated above, would advise operation in cases of serious and frequent recurrence, only when the recurrence threatened life or incapacitated the patient for his chosen life-work.

Physicians in general practice, particularly those outside the large cities, find that patients do not submit willingly to an operation, of whatever character, without the very best of reasons. It is apt to be a question of life or death, not a matter of convenience or possible future necessity, which convinces them. Invariably they will take the chances on the future possibility. They have more faith in the future, and stand less in awe of the physician or surgeon. The surgeon of the larger cities does frequently what would be perfect suicide to the reputation and practice of the physician of the village. Hence, the advice which is of service to the physician or surgeon is the advice which he can follow. Some advise the operation in all cases of catarrhal or ulcerative appendicitis,—happily not all.

Dr. William T. Bull, in 1890, reported having seen five or six cases of serious ventral hernia from the operation.

Dr. A. H. Smith, the same year, reported six cases which resulted in suppuration. Three without operation recovered; three died notwithstanding an operation. He believes that every attack results in extra-fibrinous exudation, and less danger of abscess, should it form, rupturing into the peritoneum. This opinion does not necessarily clash with that of Dr. Weir.

In reviewing some of the literature on this subject, it has been my aim not to give opinions or quote authorities further back than the past three years. The discarding of the terms formerly used to designate it, the modern pathology, the more discriminating diagnosis, and the remarkable success of the operators, make the consideration of appendicitis a very different subject from that of "perityphlitis" of five years ago.

We now come to the treatment proper of appendicitis as met with in general practice. It is very simple. It has been foreshadowed throughout the discussion of this paper. It is the same whether the exciting cause seems to be from an overloaded stomach or from constipation. A history of constipation is not, however, necessary for the presence of a fecal accumulation. The bowels may have moved regularly every day, yet the amount of fecal matter obtained by judicious treatment is invariably surprising. This is easily accounted for; a portion of the stool being retained each day, notwithstanding the larger amount evacuated. It will take only a few weeks for the colon to become well distended, while a hard, dry impaction of fecal matter is lodged at the ileo-cecal valve.

First of all things necessary, then, is abstinence from food. The observers say low diet. I should say no diet. No more fecal matter should pass down to the ileo-cecal valve and lodge while it is obstructed.

Second, enemata should be administered. In urgent cases I usually say every two hours. Frequently these are kept up for four to five days. These enemata are useful for two reasons. First, to relieve pain. Second, to remove the obstruction. I know of no more efficient measure for the relief of abdominal pain, especially when it is low down, than hot enemata. It is often quicker in its action than a hypodermic of morphia, and will sometimes succeed when the latter fails. The enemata may be varied in character as fancy or experience may dictate, from castile soap-suds and warm water, with turpentine or castor oil added, to the infusion of lobelia, or even sale molasses.

Third, the judicious use of morphia, hypodermically or by mouth, as seems advisable, as a necessity, not as a curative measure. It should never be used to overcome peristalsis, as formerly advised, but simply for the relief of pain. It is too much to ask these patients to suffer, as they must for days and nights, without giving them some temporary relief. Each dose that is given, however, should be with the full knowledge of the fact that by locking up the secretions and delaying the action of the bowel, by so much time is the cure of the disease postponed. Nevertheless, it is equally true that by relieving pain the strength of the patient is preserved.

Fourth, castor oil is to be given when, after a few hours or a day, the pain is unrelieved, or the enlargement in the right iliac fossa is undiminished. Inflammatory action, I do not believe, contraindicates it, since the obstruction of the bowel by fecal matter is a common cause of the inflammation. It is my usual custom to repeat it in tablespoonful doses every six hours, until all fecal matter is removed from the bowel. This stage is usually marked by a number of offensive, diarrheic stools; finally, green in color, and independent of an enema. In case a foreign body or undigested material is the cause of the trouble, this will usually precede the diarrhea. Castor oil is the only laxative which it seems wise to give. If it does not move the bowel, it at least does no harm. All other laxatives may. In one case fourteen tablespoonfuls of castor oil were given within four days, enemata being administered every

two hours, day and night, for the same period, before the obstruction was removed.

The fifth and last measure of treatment is the application of hot flaxseed poultices, begun with the beginning of pain, and continued as long as inflammatory exudation exists.

The only authorities consulted who seem to approach the median ground of medicinal measures, are the following:

Henoch advises the opium treatment; castor oil or calomel for prolonged constipation or fecal accumulation; the ice-bag over cecum; and *when pain and tenderness cease*, a simple enema, or dose of castor oil.

Fenger, in the Cyclopedia of the Diseases of Children, says:

> If a certain diagnosis can be made between stercoreal typhlitis and perityphlitis (he retains the old name), the question is readily solved, and cathartics and clysmata will be as beneficial in the former as opium or morphia in the latter case.

As a student in medicine I remember reading Dr. William T. Bull's inaugural thesis, written in 1872, on Perityphlitic Abscess. He had collected sixty-seven cases. It is needless to say I had a very vague idea of the disease. All the cases, however, were treated during the first eight years of my practice, as outlined in this paper, and were successful. There were no histories kept, and no lasting impression was made. In September, 1888, I recorded my first and only fatal case, and the only case which ever came under my own observation where the inflammation and obstruction at the cecum being relieved, recovery did not follow. The exciting cause, too, was overeating. Evidences of abscess and symptoms of collapse came on, the patient dying the eighth day. Two other fatal cases, about this time, came within my knowledge. I do not know what treatment was pursued.

Autopsy revealed a large accumulation of pus; an appendix perforated in several places, and within, a concretion, size of a cherry stone, hard and resisting as the latter, which it was thought to be. The family secured it, however, and it could never be obtained for thorough examination. It might have been a gall-stone, but more probably was a fecal concretion. There is no doubt but that an operation was called for in this case. But owing to the condition of the patient and his surroundings, poverty-stricken in the extreme, it is very doubtful if it would have been successful.

My cases are fifteen in number, six females and nine males, varying in ages from nine to eighty years. They were of

all the stages of intensity, from the cases with unmistakable symptoms, but relieved in two or three days, to the ones of several weeks' duration, marked by relapses, general peritonitis, and final evacuation of pus per rectum.

Several were watched very closely with the view that laparatomy would probably be called for. But with the natural conservatism prevalent outside the large cities, the time did not arrive when it seemed wise to interfere by operative measures.

They all recovered. All of the lighter, as well as the moderately severe cases, dated the amelioration of symptoms and beginning of recovery from the time stools were obtained which came from the ileo-cecal obstruction. These went on uninterruptedly towards recovery.

In two of the severest cases this period of sudsidence was followed by symptoms showing local or general peritonitis. Whether this was due to an extension of the original inflammation or to a fresh attack of peritonitis, caused by exposure and chill, it was hard to decide. In the severest case it seemed due to the latter.

They were all treated as outlined previously. Accumulation at the ileo-cecal valve with symptoms of local peritonitis was treated very actively, the tumefaction and peritonitis subsiding coincidently with the relief of the obstruction. When the peritonitis was general, stools having been already obtained, active treatment was omitted until the inflammation subsided.

As stated in the beginning of this paper, it is not my desire to decry operative measures. Laparatomy is necessary in very many cases. The chief aim has been to show that too many cases recover under medicinal measures to make it advisable to withhold such measures, as many of the operators quoted advise.

Case I. Mrs. E. B., *æt.* 23; December, 1889. Found her suffering intensely from pain in the right iliac region. There was an elongated tumor in the ascending colon, very sensitive to the touch, and accompanied with considerable local peritonitis, fever, etc. Under the care of another physician, opiates had been given, laxatives and enemata had been enjoined, and she was growing rapidly worse.

Ordered hot enemata every two hours; ol. ricini in half-ounce doses every six hours, and morphia as required from necessity. This treatment was kept up for three days, small actions being obtained. Finally, a number of offensive stools, green and grumous in character, were accompanied by some hard, indigestible substances, which proved to be the gristle of meat. Rapid recovery. No trouble since.

Case II. J. C., *æt.* 37; January, 1890. Pain, requiring opiates;

fever, tenderness, and enlargement in right groin the size of two fists. Referred to previously as having taken fourteen tablespoonfuls of castor oil, and enemata every two hours for four days, before the colon was cleared out. Improvement dated from the relief of this symptom. No trouble since.

Case III. George T., *æt.* 37. Ill in January, 1890. Enlargement in right iliac region, from obstruction and inflammatory exudation; great pain and tenderness, requiring frequent hypodermics of morphia; fever, emesis. Treatment: Hot enemata every two hours; castor oil every six hours, and hot applications. After the evacuation of the lower bowel, the stools began to have a fecal odor the third day. Marked relief was obtained the fourth day, following several diarrheic stools of foul odor and more or less green color. Perfect recovery.

Case IV. was that of a little girl, nine years old. She was ill five days in January, 1891. In February there was a recurrence, she never having been entirely well. The second attack was marked by large exudation and considerable peritonitis. The disease left her weak and emaciated, and at one time suppuration was suspected, but it did not prove to be the case. Inflammatory symptoms subsided, and improvement in each attack began coincident with the relief of the fecal obstruction.

Case V. was that of an athletic young man of 20 years. He had had five previous attacks, three being about the same in severity as the present one, and two lighter in character, He had the usual symptoms of fever, severe pains, local peritonitis, and an oblong tumor in the right iliac region. He was relieved the fourth day, after free evacuation of the bowel by the usual method.

Case VI. Susie S., *æt.* 18. First attack March, 1891. Only two days in duration. Second attack in October, 1891. It took repeated doses of morphia to make the pain bearable. Local symptoms very marked; tenderness at McBurney's point; gradually developing tumor and general peritonitis. Relief the fourth day, from the usual treatment, and satisfactory convalescence.

Case VII. M. T., male; *æt.* 38. Occurred in June, 1891. This case was unusually severe in its onset, and throughout its entire course. Had had appendicitis a few years before. He begged me to give him a large hypodermic of morphia, saying that it seemed to avert a previous threatened attack. Remaining with him a greater part of the night, and finding that morphia per orem, in repeated doses, failed to relieve the intense pain, he was given a hypodermic in addition.

It was necessary to keep him under morphia during the whole period. Tenderness, first at McBurney's point, was finally distributed over the entire area of thickening and enlargement, which extended from the anterior superior spinous process of the ilium to umbilicus

and down to the middle of Poupart's ligament. There was fever, flushed face, sunken eyes, and persistent vomiting for days, first of the contents of the stomach, then of a green matter, and finally of that which was of the color of coffee grounds and had a fecal odor.

For several days I stood ready to operate, expecting to find at each visit the remaining symptoms which would justify the operation. Finally, when the stools showed that all accumulation at the ileo-cecal valve had been removed, vomiting ceased, he began to improve, and made a satisfactory convalescence.

Once since, he had symptoms precisely similar to those at the beginning of above attack. Giving a hypodermic of morphia, which put him to sleep and kept him so the remainder of the night and well into the next day, the attack was averted. It seemed to be one of perforative appendicitis.

CASE VIII. Mrs. G., 60 years of age. Complained for days of constant pain on the right side. Examination revealed tenderness at McBurney's point. Laxatives and enemata brought away hard, scybalous masses. The pain and tenderness was relieved.

CASE IX. Wm. A., *æt.* 35. Coming home one evening hungry, he ate a full box of sardines and drank a bottle of beer. Was taken with severe pain in iliac region before morning. He had fever, tenderness at McBurney's point, with symptoms of obstruction and inflammatory exudation surrounding this region.

The usual treatment relieved him, and he has had no recurrence since.

CASE X. Gay T., *æt.* 21, was taken in January, 1892, with pain in the right iliac region, which only a hypodermic of morphia would quiet. It was necessary to repeat this at regular intervals during the whole sickness. There was tenderness at McBurney's point, and an accumulation at the ileo-cecal valve. Inflammation came on, and exudation resulted in hardness and resistance to touch, and tenderness over entire region, even beyond umbilicus. Vomiting was persistent for three days. Knowing that he was accustomed to put no restraint on his unusually hearty appetite, enemata were begun immediately, each administration of them giving temporary relief. Castor oil was given in ounce doses. The fourth day relief came coincident with numberless stools, offensive in odor, tarry in consistence, and followed by green diarrhea stools for several days.

In a few days all inflammatory exudation had subsided, although tenderness was perceptible for some time.

CASE XI. was that of a married man of 23. He was taken ill in Buffalo, while on a business trip in February, and attended by a physician who staid with him several hours, and evidently understood the seriousness of the case.

On reaching home, the pain was still severe, and the first visit revealed the symptoms of appendicitis. He was a merchant by occupation, and was accustomed to eat his supper at the back of the store and wait on customers at the same time. The routine treatment was begun, the pain requiring hypodermics of morphia throughout the acute stage. He began to get relief the fourth day, and was improving when a relapse occurred, which appeared to be due to getting cold. Inflammation set in with increasing severity, the tongue became dry and red, hardness extended over entire space beyond umbilicus and median line, there being also general peritonitis as well. The eyes were sunken, features pinched, cold perspiration, and extremities numb. After the relief of the obstruction, the bowel became relaxed, and there was involuntary evacuations throughout entire illness.

One evening, tympanitis being marked and great distress arising from inability to start the gas, there being enormous distention in the region of duodenum, an enema of laudanum and starch was given. Within an hour the tension seemed to relax, there was a succession of loud reports and a flood of water; water, feces and gas came away simultaneously. Relief was immediate.

For two days the stools were swelled with pus. He was ill three weeks and was well advanced toward recovery before he regained control of the bowel. He is now perfectly well.

The other four cases present the same histories in general — one of the four being recurrent in form.

Gentlemen, I have wearied you. You may say that some of my cases might have recovered quicker under an operation. So they might. They might have died.

Again, I say, I do not decry operative measures. I only say enemata and, where indicated, laxatives are too valuable to be thrown aside, and that in the class of cases met with in general practice they are usually successful.

Papoid in Diphtheria.—

℞ Papoid ..... gr. x.
Aquæ ..... ℥ ss.
M. f. solution.

Kohts and Asch painted diphtheritic membranes with this solution every fifteen or twenty minutes with a soft brush. They found that the oftener the application was made the more rapidly membranes disappeared. Kohts treated several hundred cases by this method with the greatest success.

THE TREATMENT OF EPILEPSY.

By FREDERICK PETERSON, M. D., New York.

Formerly Professor of Pathology in the University of Buffalo; Attending Physician New York Hospital for Nervous and Epileptic; Chief of Clinic, Nervous Department, Vanderbilt Clinic, College of Physicians and Surgeons.

THERE has been great advance of late years in the treatment of the epileptic, and I am not aware that there has anywhere appeared a condensed, practical account of the methods in vogue at the present time. Somehow or other, the epileptic and his needs as an individual have been forgotten, although empirical attempts enough to cure his obstinate malady have been made for many centuries.

In the first place, we have come latterly to look upon epilepsy not as a disease *sui generis*, but as a symptom of a number of pathological conditions, some in the central nervous system, some in the blood, and some of a reflex nature. At any rate, each and every case must be studied upon its own merits, and in the light of modern discoveries in the nervous system. It is only thus that we can learn which cases are particularly well fitted for dietetic and medicinal treatment, and which require the intervention of the surgeon. It is not the province of this article to point out the methods of diagnosis. With due care and continuous observation the physician will differentiate the features of attacks, whether petit or grand mal, nocturnal or diurnal, or a larval form. He will look for gastro-intestinal irritation and ocular disorders; he will examine the genital organs; he will exclude hysteria; he will make a chemical study of the urine for the light it may throw upon nutritional disturbances. Then the character of the seizure, its mode of origin, whether preceded by sensory hallucinations (auræ), and its limitations to certain groups of muscles, or its general nature must be studied. After such careful investigation a line of treatment may be marked out.

Surgical Treatment.—A limited number of epileptics may be treated surgically with benefit in the vast majority of cases, and with good hope of cure in a select few. The cases eligible for trephination are those that give good evidence of a cortical lesion, such as a palpable depression in the skull with a history of an injury, or where the epilepsy is distinctly Jacksonian in character, thus indicating a certain point of cortical irritation, where the epileptic explosion begins. Trephining, when done by a skilful surgeon, and under strictest antiseptic precautions, may be looked

upon as a comparatively safe operation. It should be resorted to more often than it is as a preventive measure. I refer to cases of head injury which seem, on first examination, to be trivial, but which, in the course of time, develop epilepsy. A case in point presented himself at the Vanderbilt Clinic a few days ago:

A boy of twenty was struck on the head by a bottle falling from a third story window. There was no loss of consciousness, and apparently no injury to the skull. At any rate, the scalp wound, which was severe, was sewed up and healed readily. This was three years ago. During the first year after the accident he had one epileptic fit; during the second year, two or three; now he has them two or three times weekly. There is a large scar and an apparent depression over the right fronto-parietal region, very near the median line.

I consider this case a proper one for trephination, although there are no focal symptoms of the epilepsy. At this point will be found either a depressed spiculum of bone, a meningeal thickening, or a cortical sclerosis, requiring removal.

Dietetic Rules.—Eating and drinking should be always moderate. Alcohol, coffee, and tea should be eschewed, and smoking also, in most cases, forbidden. Undoubtedly the best food for the epileptic is a vegetable and milk diet, but meat should not be altogether excluded. A vegetable diet does no harm to an adult, but should be combined with fats in the shape of oils, butter, or fat meat. We know very well that whole nations live almost exclusively upon such a diet, as I have myself observed among the hard-working, muscular Egyptian fellaheen. But growing children require proportionately more food than adults. They have not only the daily waste to supply, but a growing organism to build up, and to form a large amount of proteid (Bunge); and a mixed though light and easily digested diet should be ordered. The dinner should be in the middle of the day. The evening meal should be light. There is as yet no explanation of the nature of the epileptic explosion in the convulsive centers. Theoretically, they are looked upon as nutritional disturbances in nitrogenous compounds in nerve cells. That we have to deal with profound chemical changes in the central nervous system in most of these cases, there is no doubt. Recent studies in the urine of epileptics have demonstrated the truth of this; and after a time we shall, by more careful study, be able to modify by diet alone the frequency of seizures in many cases.

Employment.— It is too frequently the fact that the unfortu-

nate epileptic is given a prescription, a few words upon diet, and then allowed to take his own course. But the employment of mind and body is of vital importance in most of these cases. An out-of-door life in the country is that best adapted for them. If the patients are so badly off that they cannot fulfil their usual social obligations, get an education in the schools, or carry on their trades or professions among their fellows, they must be sent to an institution for epileptics, where provision is made for all such needs. The best institution in the world of this kind is that at Bielefeld, Germany, which I have fully described on many occasions,[1] and whither I have had the pleasure of sending several patients from various states in this country, to the great happiness of themselves and the relief of their families. I am glad to say that similar institutions are now being organized in this country. There is one already in embryo at Santa Clara, California; one nearly completed at Gallipolis, Ohio, and New York will have located a site and secured plans for buildings on the colony system before the end of this year.

Hydro-therapy. — Cold shower-baths and cold sponge-baths, daily, are beneficial. The shower-baths should be rain-like in character, that is, not too forcible.

In many cases a morning and evening bath (the "half-bath") proves very serviceable. The "half-bath" is taken in a bath-tub only half-filled with water, and when taken should be accompanied by energetic rubbing of the patient by an attendant. This bath lasts five minutes, and the temperature should be not under fifty and not over seventy degrees Fahrenheit.

Where there is evidence of hyperemia and increased blood pressure in the head, the cold cap is useful.

While these are the general indications for hydro-therapy, certain measures are often of use at the time of seizures. During a fit or during a *status epilepticus* it will be observed that there is one of two vascular conditions present: either the face is pale and there are signs of brain anemia, and in this case warm wet compresses should be applied to the head and genitals, accompanied by friction of the trunk upward, the body being placed with head low and arms uplifted; or there is turgescence of vessels in the head, the face is red, the carotids beat strongly, and under such conditions a contrary procedure is indicated — cold compresses to the

1. *N. Y. Medical Record*, April 23, 1887; Journal of Nervous and Mental Diseases, December, 1889; *State Charities Record*, N. Y., June, 1890; Journal Nervous and Mental Diseases, July, 1892.

head, neck and genitals, strong, wet beating of the feet, with a high position of the head.

Treatment with Drugs.— For the great majority of cases of grand mal and petit mal, a bromide will be found by far the most useful drug. Only one bromide should be used, and the experience of some of the best practitioners (like Gowers), and of one of the greatest epileptic colonies for twenty-five years (Bielefeld), is that the bromide of potassium is the best salt, having the least irritating effect upon the gastric mucosa. It is a pity that it cannot always be obtained in pure form, for, as ordinarily sold, it has impurities, like chlorate of potash, to the extent of six per cent. I hope some chemist will undertake a careful comparative analysis of the various bromides in our market, as it is very important that a pure drug be employed. The bromide of potash may be prescribed in powders of ten to fifteen grains each, to be taken with plenty of water after meals, or may be given in a solution in water simply, as follows :

R.—Potassii bromidi .....40 grammes (ʒ x.)
Aquæ puræ .....200 grammes (ʒ l.) M.

Which is a proportion of one-fifth of the drug to a teaspoonful, making a dose of twelve to fifteen grains, according to the size of the teaspoon. Or it may be given in a one to four solution :

R.—Potassii bromidi .....50 grammes (ʒ i.)
Aquæ puræ .....200 grammes (ʒ iv.) M.

While, in the ordinary diurnal forms, it is, perhaps, as well to give this quantity in three doses daily, it is, as a rule, better in the nocturnal form to prescribe either an extra dose at night or the whole amount of forty to sixty grains in one dose at bedtime, in a full glass of water.

While children will bear large doses of bromide fairly well, it is better in those from ten to sixteen years of age to begin with ten grains, three times daily, and under ten years, still less.

Each week an additional dose should be added, for three or four weeks, the object being to push the drug to the limit of physiological tolerance — very nearly to the state known as bromism. But extreme discretion must be used in the early part of the treatment, to discover the patient's susceptibility to the remedy, and to guard against its harmful effects.

Chloral may often be advantageously combined with the bromide (Seguin), particularly in cases with a tendency to severe cutaneous

eruptions, and when thus administered, the bromide itself should be proportionately reduced.

Where indicated, other agents may be employed for concomitant conditions,—iron for anemia, arsenic for the acne, and saline waters and salts for constipation.

To sum up in a brief sentence the treatment for epilepsy in general of all forms, must consist of careful regulation of the diet, hydro-therapeutic measures, out-of-door employment, and the bromide of potash.

Occasionally, there are cases that do not do well on a bromide. To these may be given borax in fifteen to twenty grain doses three times daily after eating, or lactate of zinc, seven to twelve grains at a dose. Tincture of simulo will, at times, be found useful in one to two drachm doses (Starr).

In petit mal I have seen excellent results from the use of nitroglycerin in doses of one-one-hundredth of a grain three times daily.

In the nocturnal form, tincture of belladonna, five to ten minims, or atropine, one-one-hundred-and-twentieth grain alone is, at times, strikingly effective.

For patients who feel their attacks coming on, we are in the habit, at the Vanderbilt Clinic, of providing a wide-mouthed, glass-stoppered bottle containing nitrite of amyl in a plug of cotton. When an attack is impending, the patient smells of the vapor, and often in this way wards off a seizure or diminishes its severity.

Whenever a case is taken in charge, he should be provided with a blank form, upon which not only should the patient register his attacks as they occur, but the physician should write his regulations for baths and diet, and put down in cipher, for his own use, his treatment; the blank to be returned to the doctor in charge at the end of a year. I have had made for my own use a special form of blank by G. P. Putnam's Sons, of New York, which is exceedingly serviceable. It is printed on a heavy paper, so that it will not wear out when carried in the pocket for a year; has spaces for monthly notes of treatment; for a daily record of attacks; for a monthly, half-yearly, and annual statement of the number of seizures; for the orders as to baths; and, furthermore, the proper regulations as to diet and kinds of food are printed upon the back of the register. I should be happy to send a sample of this epileptic record to any one who desires it, or application may be made to the publishers.

201 West Fifty-fourth Street.

PUERPERAL INFECTION.[1]

By EUGENE A. SMITH, M. D., Buffalo, N. Y.

In a former paper read before this society, entitled Puerperal Fever, the febrile condition not due to septic infection, which complicate the lying-in period, were discussed. In this paper I shall endeavor to excite a discussion of the etiology of puerperal fever due to septicemic processes, and more properly named puerperal septicemia.

Omitting all discussion of predisposing causes, it may be stated that the exciting cause of puerperal septicemia is the lodgement of pathogenic bacteria in the maternal secretions and tissues, and, therefore, we have to discuss their modes of entry.

From the teaching of some men who hold that all cases of puerperal septicemia can be prevented, it follows that the obstetrician is wholly blameworthy who finds one of his patients afflicted with septic invasion. I well remember the fear and trepidation with which I watched my first puerperal cases after studying the extreme views expressed by Dr. Garrigues in his book entitled Antiseptic Midwifery. Since then I have seen that the most careful physicians do meet with cases of puerperal sepsis, and usually these cases have developed just where the obstetrician was most observant of antisepsis, or had least reason to expect such trouble. In hospital as in private practice, antiseptic measures have nearly exterminated childbed fever, yet the spectre still stalks abroad occasionally in the practice of even the most radical advocate of antiseptic care during the puerperium.

If, then, we decide that rigid asepsis and antisepsis do not always insure against the septic infection of lying-in patients, it follows that the physician is not always responsible for the entry of pathogenic bacteria, and the question arises as to how such bacteria gain access to the system.

The external infection of patients, or the introduction of a poison by unclean hands, instruments, or clothing, was pointed out by Semelweis, of Austria, and in the course of the last fifty years antiseptic midwifery has developed from this teaching of a man who was held in contempt during his life for being the pioneer in this field.

In the infection of a patient from external sources, where the physician's hands and instruments are absolved, the blame must fall on nurse or surroundings. What patients may and do escape

1. Read before the Buffalo Obstetrical Society, May 24, 1892.

when an ignorant nurse has charge of the puerperal bed is wonderful. In a case of mine, the attendant nurse, a midwife of the old school, left the washing of the dinner dishes, dried her hands on a dirty towel, dipped her fingers in a lump of lard, and proceeded to examine the patient to find the progress of the case. To further point the moral in this instance, a case of severe sepsis should have followed, but unfortunately for the moral, the patient had no trouble.

Such experiences in the surroundings of puerperal cases make some men careless, until the fact is startlingly brought before them that uncleanliness in the physician is much more liable to cause septic infection than the same fault in the midwife. The doctor is daily in contact with pathogenic bacteria, the streptococci and staphylococci of pus and erysipelas. The uncleanly midwife may infect her patients with non-pathogenic bacteria indefinitely; the bacterium term, for instance, the putrefaction, which causes fetor. But once having a case of sepsis, the midwife is more likely to have several more, because she does not understand the contagion she carries.

Dr. P. W. Van Peyma draws attention to the fact that patients may infect themselves by the involuntary application of their hands to the genitals in the agony of delivery, and he believes this to be the probable etiology of many cases of puerperal sepsis in women who have had no attendant during labor.

When the external introduction of the poison can be excluded, how are cases of puerperal septicemia to be explained? This question brings up the subject of mixed infection, or anto-infection, a subject which has several times been mentioned, but not discussed in our society. In a former paper, I related in full the history of a case of septic peritonitis occurring in the General Hospital, and ending fatally five days after labor. The post-mortem revealed double pyosalpinx, with a normal aseptic condition of uterus and vagina. The patient was a prostitute, with a history of gonorrhea.

From this case and similar ones, we learn that the gonococci, though they are not pyogenic, still do excite inflammatory changes which make a nidus for the development of pathogenic, pyogenic bacteria, entering by some superficial distant abrasion of skin or mucous membrane, and circulating in the blood. Lately I assisted in extirpating purulent buboes from a girl of eighteen, who was two months pregnant, and had gonorrhea and possibly chancroids. The lymphatics leading from the vagina and vulva are capable of

carrying the poison to the intrapelvic as well as to the extrapelvic chains of lymphatic glands. Imagine this case to be nine months advanced and the mechanical violence of labor to disturb some intrapelvic pregnant suppuration, and we readily see the cause for a case of puerperal septicemia.

In hospital obstetric practice I have learned to watch carefully all cases of leucorrhea. Owing to the presence in the diseased mucous membrane of pathogenic bacteria, notably the gonococci and pyogenic microörganisms, patients are prone to post partum septic troubles, as their babies are to ophthalmia neonatorum.

In this way also cases of suppurative inflammations, intestinal ulceration, ulcerative endocarditis, diphtheria, and erysipelas, complicating the puerperal state, may be shown to influence the onset of septic processes in the maternal passages, by the spread of pyogenic bacteria from the spot of suppuration to the injured susceptible spots in the genital tract after delivery.

In a case of rheumatic endocarditis, complicating the lying-in period, reported in a former paper, I drew attention to the happy effects following the internal use of salicylate of sodium, and the local use of douches and chloride of zinc for diphtheroid patches in the vagina. Here was a case of infection of the inflamed endocardium by streptococci and staphylococci entering the blood, and a secondary infection of the wounds in the vagina. Conversely in a second case, giving a rheumatic history, I found phlebitis in the groin and thigh, due to some septic inoculation, possibly gonorrheal, followed by endocarditis. Here the temperature ranged above 104° F. for four days, but as the attack did not develop until the second week after delivery, she was able to throw off the poison and recovered.

I have not seen a case of erysipelas in the puerpera cause puerperal septicemia, but in the following case I saw the converse:

Mrs. B., aged 30, primipara, has a husband who was treated by me just before his marriage for gonorrheal and chancroidal suppurating buboes. I found his wife in labor upon my first visit, and she gave a history of an attack of facial erysipelas two years before marriage, and a troublesome leucorrhea beginning shortly after marriage. Her baby was delivered in the evening with forceps, and a laceration of the perineum occurred. On the next morning she had fever, and it continued for five days, when a violent attack of facial erysipelas reinforced the puerperal sepsis already existing as an endometritis and endocolpitis. The peritoneum and parametrium were not involved, and she made a good recovery.

Whether she had an erysipelas of the genital tract, or the septic infection merely lighted up dormant streptococci erysipelatosm, would be a question for a bacteriologist to debate, but here was a case of mixed infection which primarily was the sin of the husband who contracted gonorrhea by illicit intercourse, and secondly, was made possible by an attack of erysipelas in the wife before marriage. I may say that I was not treating outside cases of erysipelas, and my contemporary obstetric cases progressed favorably.

In regard to phthisis, pneumonia, typhoid fever, syphilis, scarlatina, and other diseases, caused by pathogenic but not pyogenic bacteria, it may be said that they make the puerpera more liable to puerperal septicemia by debilitating the system so that pyogenic germs can more readily flourish upon entering the secretions and wounded tissues externally, or reaching the vulnerable spots by the circulation internally.

In conclusion it might be of interest to discuss the terms anto-infection and previous or mixed infection. Anto-infection signifies that the patient herself originates microörganisms to poison herself, and, therefore, is an incorrect term and should not be used. When used it is intended to show that the physician considers his patient was not infected by hands, instruments, or surroundings, but developed the puerperal septicemia from a source of infection within the patient which he could not control.

It would be better, however, to call such conditions the result of a previous or mixed infection, and then strive to discover the point of entry of pyogenic microörganisms in order that a rational and radical treatment of the source of infection could be carried out, if possible.

With more care in the examinations of patients with puerperal sepsis, and a more thorough inquiry into the etiology, the physician can be more scientific in treatment, and can prove himself blameless when he has used all aseptic and antiseptic precautions during the stages of labor.

SPEAKING of the life of phthisical patients sent to Colorado, Dr. J. M. Keating, of Colorado Springs, in a paper read before the El Paso County Medical Society, believes that many cases of phthisis which have a fatal ending would have recovered if given rest. He thinks it is a mistake for patients to rush madly into out-door life. He believes that a rest cure, combined with inhalation of oxygenated air, will be one of the best means to combat phthisis. He thinks at the health resorts the cottage system should be used.—*Lanphear's Kansas City Medical Index.*

ACTUAL, NOT TEXT-BOOK, EXPERIENCE WITH CASES OF ECTOPIC GESTATION.[1]

By JAMES F. W. ROSS, M. D., Toronto.
Fellow of the American Association of Obstetricians and Gynecologists.

If you desire to know whether a woman hath conceived or not, give her, going to rest, a draft of metheglin, and if afterwards she feels pains in her belly caused by wind, she hath conceived; if none, she hath not.

Aphorisms of Hippocrates.

Again,—if a woman doth not conceive, and you are desirous to know whether she is capable or not, wrap her close around with clothes and put a perfume under her, and if she perceive the scent to pass through her body to her nose and mouth, be assured it is not her fault if she is barren.

Aphorisms of Hippocrates.

The great boon of a practitioner in these odorous days of surgery ought to be a wife who cannot smell, but, according to Hippocrates, one dare not select such a wife if he must choose between unfruitful union or an iodoform inconvenienced wife, unless he is prepared to shoulder the stigma of barrenness himself.

One must, however, admire such an acute observer as Hippocrates, though he gave us much that was inaccurate. I hope no text-book compiler will re-quote the above quotations, and hand them down as gospel from generation to generation. And yet this is done by compilers of text-books. I take it that all text-books should be compilations by many original workers in special fields, each writing only on the subject with which he is thoroughly familiar by virtue of a rich and fortunate experience. But the craze seems to be in direct opposition to this view. The man of least practical experience often writes the largest text-book. How are text-books written? A stenographer is engaged, old text-books are arranged around a room open at chapters on the same subject. These have all been previously reviewed and read by stenographer and author. The author now picks out a little from one, and a little from another, and endeavors to change as much as possible the wording so as to avoid any charge of piracy. Books are, therefore, filled with this "that may occur" and that "that may be given," and something else "that has been recommended," until the reader is either confused or forced to wade through a lot of padding that his own experience tells him is useless, before he is able to pick up some little crumb that may be of value.

1. Read by invitation before the Medical Society of the County of Erie, at Buffalo, June 14, 1892.

For many years the text-books did not recognize such a disease as pregnancy occurring outside of the uterus. When they did recognize it, the authors were unprepared to deal with it on surgical principles.

It has been said of a woman who floods to death, "extremam fundet sum sanguine vocem," and it is indeed so,— she casts forth with her blood her last breath ; she dies from a misfortune, not a disease, from the result of a condition not quite normal.

The woman who dies from the hemorrhage resulting from an ectopic gestation is similarly situated. In the one case every effort is made to save life, to stop the torrent ; in the other the surgeon sits passively by — yes, even today sits passively by — and watches the life ebb out. Barnes came boldly to the front and asserted that the day would come when a surgeon of strong convictions would cut down and tie the bleeding tube, just as any one worthy the name of surgeon would cut down and tie a bleeding femoral artery.

Lawson Tait began to do pioneer work, and his enemies must admit, no matter how distasteful it may be to them, that his teaching has already saved several hundred lives. In my own experience, five out of six lives have been saved by following Tait's lead. I have operated on seven cases of extrauterine pregnancy with only one death, and that of a woman in the last stage of septic poisoning, after five weeks of intraperitoneal suppuration. One case having reached full time, cannot be classed among the lives saved by the procedure so boldly carried out by Tait. I have assisted a colleague to operate on a case positively diagnosticated by us as one of unruptured extrauterine pregnancy. It was an unruptured extrauterine pregnancy. But I have also operated on two cases in which I excluded extrauterine pregnancy, and they both proved to be cases of ruptured ectopic gestation. I saw Mr. Tait operate on three cases. I have also seen two other cases operated on by one of my Toronto colleagues. My experience is, therefore, limited to :

Ross 7, 6 recovered ; Tait 3, 2 recovered ; Temple 3, 2 recovered. Total number of cases, 13 ; number of cases recovered, 10.

I also saw Price operate on one case, but do not know the result. You must not, therefore, expect too much from me. I might write a book on the subject on the lines laid down above, but intend to confine myself to points gained by actual experience.

I realize the fact that I am now talking to general practition-

ers, the prototypes of "the sun, around which all other luminaries, each moving in its own little sphere, revolves," as my friend Dr. Gihon has so well put it. If the general practitioner will wade through the literature on this subject, he may probably find that the symptoms of ectopic gestation can be exhaustively collated as follows:

History of Labors.—In most cases there has been a considerable period of sterility preceding the ectopic gestation.

History of Tubal or Pelvic Disease.—This will usually have been present. The history often shows that the patient has had a bad miscarriage some time before, or a supposed recent miscarriage.

Menstrual History.—May, perhaps, have missed a month, or a period has been anticipated, scanty, or delayed a day or two. Then irregular discharges of blood have begun, and sometimes been so severe and dangerous to the patient as to require plugging. Sometimes these hemorrhages will come on two, three, or four times in a month. In some they will be almost continuous. This discharge, with the passage of decidua, makes the patient assert positively that she has had a miscarriage.

Pain.—Some have no pain. Others have dysuria, or frequent desire to micturate, a desire to strain, a feeling as if something were coming down. Pains may be paroxysmal, like labor pains, or like the pains of a miscarriage, and they may be accompanied by a gush or a discharge of blood.

Breasts.—Some have shooting pains in the breasts, with a hot feeling. Breasts may tingle and feel full. Milk may be present.

Nausea.—Evidently not a reliable symptom.

Other Feelings.—May believe herself pregnant, or the reverse, but such feelings cannot be relied on.

Examination.—Vagina may be of a purplish color. The cervix, perhaps, is soft and patulous. Uterus may be pressed forwards or backwards, to one side or the other. An irregular swelling that feels like no other swelling, neither like a pus tube or ovary, that feels knotty and boggy, will be found in its neighborhood. Some say the tumor may pulsate. No placental souffle can be made out at this early period, even with the stethoscope in the vagina.

These will be the symptoms of this condition before rupture or suppuration. Though a general practitioner has no particular interest in anything but the diagnosis and treatment of this condition,

I would like to give the reasons for the foregoing symptoms so that they may be more readily brought forward on the spur of the moment at the sick bed.

The very cause of the sterility is the cause of the fertilization of the ovum and its non-removal from the tube. For many years the egg has managed to escape fertilization, but, at last, one of the spermatozoa, more vigorous perhaps than his fellows, has reached the egg and the damage is done. Many of these patients contract gonorrhea soon after marriage, the tubes are affected, but only to a minor degree ; the ciliated epithelium is shed, and the tube is functionally imperfect. The supposed miscarriage always requires rigid scrutiny. Close cross-examination will generally elicit the fact that the doctor said it was a false pregnancy, or that he thought it was a miscarriage, although unable to find a fetus. The discharge of blood is due to the separation of the decidua. This forms exactly as it does when a genuine pregnancy occurs. This bleeding from a uterus that is next door neighbor to a pus tube or ovarian cyst, is nothing unusual. It frequently occurs after abdominal operations and may even occur into the vagina from the stump of cervix left after hysterectomy. This symptom cannot, therefore, be relied upon. It is frequently entirely absent. As to pain, the dysuria, dyspareunia, dyschezia, are the accompaniments of so many other intrapelvic conditions that they cannot be relied on in this connection. Pain may indicate rupture of the tube and hemorrhage, or such hemorrhage may occur with scarcely noticeable pain. The presence of the apparent foreign body will of itself produce pain that is likely to attract the patient's attention, but it is not severe. This pain is of very great importance. The woman has been practically a well woman until it set in. What diseases produce such pain in a healthy woman ? There is no evidence or history of recent gonorrhea, though there may be of old infection. The woman has had no miscarriage ; she has had no intermittent attacks of pelvic inflammation, but while progressing well, though barren, she suddenly, in the midst of health, becomes an ill woman. Ectopic gestation is the only disease that will produce this condition. It is often put down to sweeping the house, doing a day's washing, straining at stool, and a hundred and one other causes physiologically and pathologically unexplained, but will be found by the abdominal surgeon to be due to the presence of an ectopic gestation. I am now speaking from actual experience. In whist, we say when in doubt "play trumps;"

well, when dealing with pelvic diseases, diagnose by exclusion, and when you meet a peculiar puzzling condition that feels neither like a pus tube nor cystic ovary, that is too soft for a fibroid with a pedicle, that is too hard and too movable for a hydrosalpinx, that does not feel in shape like an ovary, but is too hard for a tube, that takes some eccentric position between uterus and bladder and simulates that disease of the ancients, "pelvic cellulitis"—then make a guess,—guess ectopic gestation, and from actual experience I know that your guess will probably be correct.

Do not rely on breast symptoms, or sickness at the stomach, or peculiar longings, or a woman's own ideas of her condition, or you will find that you have trusted in vain. In no cases must greater care be observed in eliciting all the facts,—the real, not the imaginary facts. Leading questions must be avoided or the symptoms can be made to suit every pelvic disease. I have been astonished at the different aspects borne by a history read before and then after operation ; I have chided myself with my own blindness. When such puzzling cases occur, the history should be carefully written on a sheet of paper. At a subsequent visit this should be produced and a second cross-examination indulged in to see that the patient tells the same story over again. We are thus able to verify the original story.

After some authorities laid down definite symptoms as indicative of ectopic gestation, cases with similar symptoms were diagnosticated as cases of ectopic gestation, and were in more than one instance operated upon. Such cases were found occasionally to be cases of normal pregnancy. I cannot see why the two conditions should be confused if the physician carefully analyzes all the symptoms. After the profession felt assured that the diagnosis was easy and certain, that supposed cure-all, electricity, was introduced to kill the fetus and destroy the activity of the placenta. But many an ectopic pregnancy has disappeared without electricity, and, in fact, without any treatment, and certainly without any correct opinion of the case having been arrived at.

We have affecting women a disease called pelvic abscess. I am convinced that many such cases are not ones of pelvic abscess, in the ordinary acceptation of the term by the profession, but they are cases of old extrauterine pregnancy, with intraperitoneal hemorrhage and secondary suppuration in the clot. This suppuration may not tolerate the prescribed bounds of a jealous peritoneum, and we then have resulting general purulent peritonitis.

As to diagnosis. Can the rupture of an ectopic gestation give rise to symptoms that will point to the rupture? Very frequently they will not. A woman may be going around with blood in her abdomen without showing any definite signs of the presence of such blood; and yet peritonitis may supervene at any moment.

Such a peritonitis to me indicates the commencement of suppuration, and the indication is immediate operation. The temperature and pulse will be elevated in such a case. The temperature after rupture may remain normal for some time until the final explosion takes place and suppuration sets in. The woman is then generally in a good condition for operation, but if operation be delayed, her life will be sacrificed. Before such rise of temperature occurs, even though rupture has taken place, many cases will do well if allowed to wait. Absorption will occur, and when it does occur subsequent to the adverse opinion of a consultant, the one giving the adverse opinion feels that he has been wanting in judgment. He will feel repaid for this, however, when he thinks of the numerous occasions on which his judgment was not wanting, but when, after advising operation, his advice was rejected and the patient died.

Hematocele is nearly always connected with ruptured tubal pregnancy. After washing out the hematocele, indications of extra-uterine pregnancy will be apparent to the observer accustomed to see cases of ectopic pregnancy.

I show a specimen from a woman who had an enormous suppurating hematocele. The fetal sac was almost overlooked, lying, as it did, high up among the intestines.

Sudden symptoms simulating acute poisoning are at times met with. In my own cases, though the vomiting was severe, I never for an instant suspected poisoning.

In Case No. I. I diagnosticated the condition before operation, but this was two weeks after full term.

Case No. II. I diagnosticated a ruptured tube or ovary produced by my examination.

Case No. III. Had well marked symptoms of ectopic gestation, but I hesitated about admitting its presence.

Case No. IV. Nonplussed; could not diagnose the mass as anything definite; I think that given such a case again I would, by the process of exclusion, favor a diagnosis of ectopic gestation.

Case No. V. I diagnosticated this as suppurating hematocele, and leant toward ectopic gestation as the cause of the hematocele (as I always do).

Case No. VI. Nonplussed; diagnosticated, after rupture into the peritoneal cavity of a suppurating clot due to ectopic gestation as a ruptured pus tube.

Case No. VII. Not yet reported, but positively diagnosticated as secondary suppuration in the clot poured out by a hemorrhage due to ectopic gestation.

The case of this woman was so typical that I will briefly relate it.

Mrs. X., aged about 31 years. Her attendant physician told me that he attended the husband with gonorrhea about the time of his marriage; that the wife contracted the disease and suffered what he now believes was inflammation of the tubes. She was then sterile for three years, though otherwise in good health. A period was missed by three weeks. Flowing then began and lasted for three weeks. Abdominal pain of an uncomfortable but not severe nature came on and lasted for two weeks. At the end of this time she was straining at stool, when sudden pain seized her low down in right side of lower abdomen. She managed to crawl to bed, and arising a few hours after, the pain recurred. Three times she made the attempt to walk about, and three times the pain came on. Her temperature and pulse were normal. They began to rise about five days after the first attack. May 11, 1892, pulse was 130, temperature, 102 2-5.

On opening the abdomen its lower part was found filled with blood—grumous, coffee-ground colored, stinking blood. The tubal pregnancy was shelled out and tied off, and the patient has made an excellent recovery.

I will not burden you with the details of the other cases. This paper is only intended to be a hurried, tumbling together of a few disconnected facts, the outcome of my own observation of a small number of cases. You may take them for what they are worth.

If, after cases have resisted all other methods of diagnosis, as they will do very frequently, the abdomens are opened, the true state of affairs will be found, and the treatment can then be tacked on to the tail end of the diagnosis, and a cure will result.

In all cases of obscure miscarriage with a doubt as to the previous abortion, with a mass in the pelvis and unaccountable pains, a consultation should be called before the patient lapses into a critical condition. An operation should then be performed, partly exploratory and wholly curative.

The results of such operations done early can compare favorably with the most successful operations known to modern surgery.

DISCUSSION.

Dr. M. A. Crockett : I am very glad of an opportunity to exhibit these specimens to the Society, in connection with Dr. Ross's paper. The three specimens which I have here illustrate the two extremes of ectopic gestation. The remains of this fetus (specimen No. 1) were removed by Dr. Mann after having been in the abdomen for fifteen years. The case had gone to full term, and the child died. The woman suffered no particular discomfort, married a second time, and had one or two children. Last Fall she noticed that seeds, etc., passed out with the urine, and she began to show evidences of disturbance in the sac. On section of the abdomen, three openings between small intestines and sac were found, also an opening from the sac into the bladder. The holes in bladder and intestines were closed and the fetus and sac removed. It evidently was a double-horned uterus, the pregnancy occurring in one cornu. The patient made a good recovery.

This second fetus was carried by the woman for seven or eight years, which then, for some reason, began to cause pain, fever, and general disturbance. Dr. Mann opened the abdomen, but found the sac universally adherent, so removed the fetus, and packed. The placenta was, apparently, still vascular, and came away gradually piecemeal. The patient recovered. You will note that the specimen is a well-developed, full-term fetus.

These cases well illustrate the long quiescence yet ever-threatening danger of such conditions, and, to my mind, are important reasons for early operation.

This third specimen represents the other end of the series. The patient was sent to the hospital by Dr. Mann, with a diagnosis of ectopic gestation. The history was typical, and just such a one as Dr. Ross describes. An apparently normal pregnancy, with sudden and severe attacks of pain, with collapse at about three and a half months. Owing to Dr. Mann's illness, the case passed into my hands. I opened the abdomen and removed this sac containing the fetus. It was easily shelled out, one or two adhesions were tied, but there was nothing like a pedicle. The patient did well. This mass is largely made up of fibrin. Apparently, rupture had taken place into the broad ligament. During the last two years we have had at the hospital six or seven cases like this, the operation in all cases being followed by recovery.

Dr. W. S. Tremaine : Having been called on by the president, I wish to say that I have been very much interested in the paper. I have had an opportunity of seeing a number of cases where operative interference had saved the patient, and am among those who prefer laparatomy to electricity in ectopic pregnancy. It was my privilege to see several of the cases with Dr. Mann, from which the specimens exhibited by Dr. Crockett were taken, notably one case occurring in the wife of a

prominent citizen, where correct diagnosis and prompt operation, undoubtedly, saved the patient's life. Cases of extrauterine pregnancy may with propriety be divided into *acute* and chronic ; in the former tentative or timid policy would result in the patient's death.

To one remark in Dr. Ross's paper I would take exception, namely, when he spoke of "that disease of the *ancients*, pelvic cellulitis." While recent investigations have unquestionably shown that many cases of pelvic inflammation originate from diseased tubes, it is a fact within my personal observation that by no means all of them originate in this way. The "cellular" or connective tissue is the great nutritive framework of the body, and the *tissue* of inflammation; but pelvic inflammatory products do not always require laparatomy to remove them. The subject is a wide one, and I would like to discuss it at length, but we have with us today several brilliant gentlemen from other large medical centers, whose wide experience and successful results entitle them to be recognized as experts, and I feel sure the society is anxiously waiting to hear from them, so I will no longer trespass upon its patience.

Dr. Joseph Price, of Philadelphia : It gives me pleasure to discuss Dr. Ross's valuable paper upon this very important subject. I have no criticism to make, and shall only attempt to fortify, from my own practice and the deductions of my own experience, the points he has ably presented and emphasized. I wholly agree with him. Our knowledge of the pathology and our confidence in what we can surgically accomplish are precisely the same. We agree as to our possibilities and limitations. Such papers should be read and discussed before every county society in the land. It is, in the very highest sense, missionary work. Their reading and discussion teach and impress those lessons through which hundreds of human lives are saved, and that the general practitioner first sees these cases, not the pelvic surgeon.

Probably, no element enters into these cases more vital in importance than that of promptitude. This lies largely, if not altogether, with the general practitioner. The consensus of opinion in the discussion of this subject is in strange and marked contrast with what it was a few years ago. Then the discussions were conducted under the Marquis of Queensbury rules instead of under Cushing's Manual of Parliamentary Practice. A number of valuable specimens have been presented today. They beautifully illustrate this good work now going on in every section of our country. The evidence is cumulative of our certain and rapid advances. If the specimen shown by Dr. Crockett, of thirteen years' standing, had been operated on at once, the woman would have been saved much suffering and great menace to her life. There is always danger in any such quiescent conditions, of renewed inflammation, perhaps of a septic nature, during labor. In one of my own cases, I was making an operation on what was supposed

to be a large uterine fibroid. On introducing a corkscrew to facilitate its removal, fluid escaped, and investigation showed that I had to deal with an ectopic gestation. If it had not been for this accident, the specimen might have been put in a museum as an illustration of fibroid tumor. I mention it to show on what delicate pivots diagnosis and successful operation sometimes turn.

The frozen specimens of Hart and Barbour deserve careful study, and illustrate valuable lessons. One of the great dangers in operations for ectopic pregnancy is bowel adhesions, and every one who operates must be prepared to suture one or more of these. The tumor is usually tubal, and in a large experience, over 100 cases, including my own and those of my assistants and pupils, I have never found the ectopic sac between the leaflets of the broad ligament; moreover, I wish to further assert that I am unacquainted, from a personal experience, with the condition called pelvic hematocele. I have never seen, at the operating table, a pure and simple specimen of pelvic hematocele as described in the books. This condition is resultant from ruptured tubal pregnancy, in my opinion, but is not to be described as a distinct pathological entity. I wish further to state that, with few exceptions, all of my cases of extrauterine pregnancy have been plainly and distinctly tubal in character, and this leads me to the conviction that it is practically the only form that this disease assumes. The exceptions are so few, that they have no practical interest at the operating table.

In 1790, Dr. William Bayne, of Virginia, first recognized the condition of extrauterine pregnancy, and verified his observations by successful operation. He repeated this in 1799, in a second case occurring in a slave on whom he also operated with good results. These two recoveries, made after diagnosis and skilful operation, have not been exceeded by any modern abdominal surgeon in their conception and execution. The work done by this distinguished Virginian laid the foundation for all future operative success, and entitles him to stand side by side in our memories with McDowell, who, in 1809, demonstrated to the world the propriety of operation in all cases of ovarian tumor.

In my opinion, there is no pelvic disease demanding abdominal section that offers such good prospects of success as ectopic pregnancy. I remember well the words of the late Dr. Agnew, with reference to hemorrhage in general, namely, "seek the offending vessel and tie it," and this as much as any other one factor induced me to operate in my first case. The urgency of operation in ruptured tubal pregnancy, to institute a comparison, is the same as in ruptured aneurism or a stab wound of the abdomen. In a case of doubt the exploratory incision need not even penetrate the peritoneum. If the peritoneum is black, there is intraperitoneal hemorrhage; if it is normal in color, there is no need of incising it. A doughy, foreign mass, inaptitude to conception, missing

of one or two menstrual periods or a delayed period, characteristic pain like that of old-fashioned "dry gripes," but more peculiarly intense and cramp-like, together with shock, are diagnostic points which may be relied upon as indicating ectopic gestation with rupture. We must exclude fecal accumulation when feeling the doughy mass alluded to. The shock in ruptured tubal pregnancy is greater than can be accounted for by hemorrhage alone. There is something almost mysterious about it, and I find it no where else so depressing. Most operators, in my experience, work too much at the anterior surface of new growths in the pelvis. I would advise and accentuate the importance of seeking in this operation a plane of cleavage high up and towards the sacrum.

One of my cases illustrates well the need of conservatism. I removed an ectopic sac from the cornu of the uterus and was about to plunge a corkscrew into the latter, but, finally, decided to leave it in place. In four or five months the patient gave birth to a fine healthy boy. This illustrates well both ectopic and normal pregnancy coëxisting in the same patient.

I have often referred to the late Dr. Formad's statistics when he was coroner's physician for Philadelphia. He found a large number of cases of hemorrhage in the pelvis among sudden deaths that he regarded as accidental, until gynecological surgeons taught him that they were due to ruptured tubal pregnancy. Of 35 such cases, 31 had died within a few hours after the appearance of unfavorable symptoms. Later Dr. Formad reported that operations for ectopic gestation had greatly lessened his post-mortem experience in that class of cases. Unruptured tubal pregnancy is rarely met with, but I wish to assert my belief in the propriety of operating in all cases where a diagnosis is made either before or after rupture. In all my operations for this malady, 76 in number, I have lost but two patients, and they were among my first eight cases ; I attribute the loss of these to bad surgery.

[Note by the Editor.—This is a very imperfect synopsis of Dr. Price's discussion, which was given at considerable length, and was accepted by the audience as a most instructive elaboration of the subject.]

Dr. F. W. Bartlett : Not intending to intimate that Dr. Price, in speaking of neglect to operate in this case (case No. 1 of Dr. Crockett's specimens), reflects upon the physicians who, from time to time, were consulted, I yet desire to briefly give the history of the same. The patient was seen by me in the early morning, after some hours' suffering from pains of parturition, a physician being in attendance. These had subsided. Examination proved to me that the gestation was ectopic, which opinion was confirmed by Dr. C. C. Wyckoff in consultation. Later the patient was referred to the care of the late Dr. James P. White, who advised operative interference,

which was declined. The woman subsequently, being divorced from her husband, married again, and bore two children, but of this I knew nothing until called to see her on account of increasing discomfort in the abdomen. I at once requested a consultation with Dr. M. D. Mann, who recognized the condition and advised removal, but it was declined, and only yielded to when the symptoms described by Dr. Crockett were manifested. This statement seems just to all concerned.

Dr. Ross, closing the discussion: The very remarkable part of the behavior of one of the cases related by Dr. Crockett, is that the placenta remained active for such a long time after the death of the fetus. Surely one such case from an actual intra-abdominal observation, is worth more than hundreds of the mythical cases reported as ones of ectopic gestation and subsequent electrocution of the fetus. I defy any man to assert that such and such a case is one of ectopic gestation, and feel that it is impossible that he should be mistaken. I can diagnosticate a case of extrauterine pregnancy I think as well as the average of experts; I have done so, and have verified my diagnosis, but on a subsequent abdominal exploration I have been mistaken more than once. It is so easy to say, "oh! ectopic gestation," and to shoot a few electrical shocks through the supposed fetus. No knife is used, the patient is pleased, her life that was supposed, probably through an error, to be so much endangered, is apparently saved, and the man who is opposed to such operations is lauded to the skies as a wonder; the case is quoted and requoted, and used as a precedent in many a really critical case; the knife is then set aside and the next time a life is lost that might otherwise have been saved. These lives are not always lost at once or suddenly; they frequently rally from one, two, three or more attacks of hemorrhage, and then die of pelvic abscess at some later period. The difficulty is that even after rupture of the tube and hemorrhage, complete absorption may take place. But with such a safe procedure as operation at our command, it is very questionable whether we are justified in allowing our patients to avoid the risk of the knife, and thereby encounter risks, that, to my mind, are much greater.

No more eloquent appeal for early operation could be offered than this specimen, shown by Dr. Crockett. No criticism is meant of the treatment of Dr. Mann or Dr. Bartlett, because Dr. Mann did not see the case until a late date. The fault lay either with the patient or her first attending physician. Here were pieces of bone and flesh extruded, bit by bit, after a long illness. Now, take all the specimens, and speaking in a general surgical way (leaving all reference to the operators in the present cases out of the question), and with them compare the specimens I show removed at a very early date, and ask any unbiased thinker which shows the better surgery, the early or the late operation, and I think he will say, the early operation most decidedly. And yet, though any

case left unoperated upon may become as formidable as any of these three cases operated on at a late date, we hesitate about what is supposed by many to be a terrible procedure, but is in reality a very safe surgical operation. As to the bleeding, I believe that it occurs from a rupture at the weak fimbriated end, in most cases, and not from rupture of the tube. Dr. Price has been led, so he informs me, after a very large experience, to come to the same conclusion.

My mention of pelvic cellulitis as a disease of the "ancients" has brought out criticism. I do not say that there is no such disease as pelvic cellulitis. It must, however, be a very curious and evasive disease, because it keeps out of the way of those who are constantly working inside of the abdomen. We never see it, but that fact, of course, does not prove that it never exists, and we are still waiting with alert eyes and fingers eagerly seeking conviction. It is strange how tenaciously men cling to the faith of their fathers. This faith in the "old" has its value, because a little obstruction to progress makes progress slower but surer and better. I admire many of these men, and am pleased to let them hold to their opinions, but I want to be allowed to hold to mine, and so do all of us who are working in this special field. We take nothing for granted, and accept as real only such facts as can be demonstrated to us, or that we can demonstrate to ourselves. Gynecology has merged into abdominal surgery, and the gynecologist who is not an abdominal surgeon, is still floundering in the dark, as the rest of us were a few years ago.

We have, unfortunately, many who are both inaccurate observers and timid operators, and these men, frequently speaking with what is considered the weight of authority, have a certain following. Their procedures are too long delayed and not sufficiently thorough, and the results are correspondingly disastrous.

THE NATURAL HISTORY OF PELVIC INFLAMMATIONS.[1]

By JOSEPH PRICE, M. D., Philadelphia.

Fellow of the American Association of Obstetricians and Gynecologists.

It is well to study the history of all affections, both from a clinical and a symptomatic standpoint, and afterward, when it is possible, reinforce and correct our knowledge by such pathological data as present themselves along the line of our investigation. Nowhere else has post-mortem examination served to clear the way to a correct clinical treatment more than in the disease under consideration.

1. Read by invitation before the Medical Society of the County of Erie, June 14, 1892.

The pathology of all the various forms of pelvic disease, though carefully inquired into and investigated several decades ago, until lately has rested upon a purely hypothetical basis. All the acute inflammatory lesions due to various causes and conditions, to which mention shall be devoted later, were loosely classed under a mythical pathology, based upon imagination rather than research, and designated cellulitis. Just what cellulitis is, and where we shall find it, is a perplexing question. A lately revised work on the diseases of women, which formerly anchored its faith and hope upon pelvic cellulitis, now confesses to have discovered that in many cases the so-called cellulitis had its origin in deep-seated peritoneal inflammation, and that many of the cases formerly designated as belonging to the cellulitic classification were, *undoubtedly*, *tubal* and *ovarian* in their *origin*. Now, the danger of "straddling" in this would-be differential diagnosis between what is cellulitis and what is not, lies in the fact that any purely symptomatic swelling of the pelvic cellular tissue is extremely rare, and the masses that are discovered, and termed infiltrated and congested connective tissue, are, in the vast majority of cases, not such tissue at all, but a conglomeration of structures, fused by inflammatory adhesions, whose destruction is not a simple cellular resolution, but has to do with many of the most important tissues of the body. What we want to remember from an anatomical standpoint is that which has been called periuterine deposits—phlegmons—cannot be located between the uterus and peritoneum, because of the absence here of sufficient cellular tissue to make it possible. As Bernutz says: "There is no cellular tissue lateral to the uterus, except just that which enters into the structure of the broad ligament." Now, as to broad ligament disease,—suppurative, I mean,—this is a question I believe I have a right to speak plainly upon. Within the last few years, or months, there has been a great deal of talk about broad ligament abscess, uncomplicated with tubal and ovarian disease. It is always a delicate matter to disagree and doubt absolute assertion, as I have myself tested, but I wish it clearly understood that my belief is one founded on my own and the broad experience of numbers of good men who work on my own lines, (or I, if you please, on theirs,) and do not take much for granted; so that when I say that in the experience of my own cases, and in those I have been either directly assisting or simply present, I have never seen an instance of simple, uncomplicated pelvic abscess, this statement must take value according to my experience. Now, when

any observer with a limited experience beats the world in finding such cases, I must simply say to him, your observation has been incorrect, your investigation has not been thorough, your zeal is ahead of your knowledge. We all know how many anomalies are found the first day a student passes in the dissecting room, and this fever is abroad in surgery. Men who three years ago disputed the statement of then established operators, are now, in the language of our American or Kentucky game, "seeing them and going them one better" in all their work, and are out-heroding Herod in all that has been discovered or may be discoverable in the paths of gynecology and gynecological obstetrics. This is particularly true of the embryonic professors, whose feverish existence has not yet reached the normal temperature, but glows and frets and fears lest cooling shall not render their life problematical.

Now, in the most purulent inflammation discoverable in the broad ligament in tubal and ovarian disease, I beg you all to examine the parts removed, and see whether you will not discover that the ligament is itself intact. It is often folded on itself, glued together, and apparently fused with the abscess cavity, but careful dissection will free it, and we shall find that the ligament, except for inflammatory cloudiness due to adhesions, is in no way attacked by the pus deposit. And this is the invariable rule when removal is made *in toto*. This is why almost, without exception, all these pelvic tumors are removable. The broad ligament is the swing upon which is held the inflammatory neoplasm, and when intestinal and omental adhesions are loosed, the whole deposit may be lifted up and removed. Now, there is a reason why all this should be so, and what is it? Briefly, this: Almost without exception the *sources of inflammation come from the outside.* This is the key to the understanding of the whole matter. If the inflammation comes from without, its natural passage is through the uterus along the tubes, and, happily, here it is likely to stop, because the fimbriated peritoneal ending of the tube is prone to glue up, and so shut off the inflammatory matter from the general peritoneal cavity. But this is often accomplished only after the ovary is implicated, so that we find that ovarian disease is always secondary to tubal implication. Now, in ovarian abscess, the complications must necessarily be more extensive than in simple tubal disease, for obvious reasons. No matter what the primary cause of the inflammation may be, the lines of infection are most naturally those just referred to. If there is so deep and poisonous an infection as

to implicate the uterine tissues subsequent to puerperal disease, and this goes on to penetrate the deep uterine structures, then, of course, we have no longer a trouble such as we have started out to describe, but a universal infecting focus, to-wit, the uterus itself. How rarely this must happen, even in the face of acute and virulent inflammations, is disclosed in the post-mortem room or on the operating table. Even in the retention of the placenta, which is by no means infrequent, and in the condition of subinvolution then present, this general septic condition, so much dwelt upon theoretically, is not often found. Just why this is true, I will not attempt to discuss here.

Now, as to the causation of pelvic inflammations in women. If these are understood and appreciated, there need be no serious difficulty in separating real from apparent disease. We are to remember, in the first place, that the history must put us on our guard as to the condition.

We are to enquire along the lines that are most likely to be followed by pelvic complications. Not only are we to seek natural but artificial causes. By artificial causes I mean those brought on not by art, but by clumsy skill, if I may be excused the paradox. *I am sure that many women are treated into pelvic disease.* In this connection we are to remember as practitioners and operators, that the simplest procedures apart from themselves may become serious under certain circumstances. The vaginal douche, for instance, whose immense value in pelvic congestions makes it an indispensable aid in their treatment, should never be used at the menstrual period, nor with too great force at any time. So used it may cause traumatic inflammation, and sow the seed for serious chronic ovarian and tubal disease. Other causes in the same line are the use of the sound, intrauterine applications, and the like. We are on the one hand advised to harbor and encourage such measures and instruments, but, if you please, as general practitioners, not as specialists; for with my own advice as a specialist, the safe path is to avoid inside tampering with peritoneal channels. Just how apparently simple interference with the interior of the uterus may give rise to such calamitous results as we sometimes see, is no more explicable, nor to be questioned, than the fact that the passage of a bougie into the male urethra occasionally kills, and without sepsis. No one with enough medical instruction to pass a first year's examination, will pass with impunity the sound into a bladder, neither ought every tyro in gynecology be made to think that the

sound in gynecology is the key to diagnosis, nor the intrauterine application the safe path to success in the treatment of uterine disease. Along side of traumatic diseases of the operative sort must be placed those of disease and those of excessive venery. These, as causes, must enter into all our considerations, and be met with the necessary advice and treatment. In the history of the affections under consideration, the most teeming causes are gonorrhea, badly handled labors and abortions, and the accidents of menstruation. It may be well to consider this last class at once, for such cases are likely to be the ones to give us the most trouble on account of the age of the patient.

Young patients in gynecology are the bane of our work. Hence, we should have care to avoid anything operative, or in the way that gives the idea of unnecessary examination. Many early cases of pelvic inflammation in girls could be avoided, if their elders could be led to instruct them as to the necessary care to be taken at such times as they are menstruating, and the necessity for careful hygiene and the avoidance of the ruder forms of exercise, together with the fatigue of the ball room.

Badly handled labors and abortions must be reckoned as a fruitful cause of pelvic and inflammatory diseases of the ovaries and tubes. Hence, in making up our minds as to the presence or absence of disease previous to examination, we must inquire about all pregnancies, abortions and labors, and get exact histories of all these. In this connection—the management of labors—excessive douching at the puerperal period with excessively strong, irritating solutions, must give us reason to seek an irritating cause that may give us much trouble. We must inquire as to the use of instruments at labor, and to the after history, with reference to discharges. We must look after the retention of the placenta, and long continued bleeding, for all of these are competent to produce trouble along the channels already designated. The causal relation of gonorrhea in the production of the pelvic diseases of women, must always be considered in its true light. I find those who have reason apart from scientific data, most apt to question the casual relation of the two conditions. With me, from an enormous clinical experience and operative observation, it is an axiom, and needs little or no demonstration. The virus is so poisonous, and the channels are so patulous, that the wonder is that more women are not infected. The history is so often direct, following neither abortion nor puerperal complications, that it were almost a work

of supererogation to insist upon it argumentatively. So much, then, for the causation.

The diagnosis, apart from the history, must rest upon digital examination. The presence of lateral masses in the pelvis, *our old cellulitic deposit*, must give us our point of inquiry. First, the uterus should be differentiated, after which, taking this as our objective point, all other relations are to be decided. The presence of a well-defined groove between the lateral masses and the uterus, points invariably to pelvic inflammatory deposit in the tubes and ovaries. The patient may suffer intensely on one side, and the disease be present on the other, hence, both sides should be examined, and the subjective sensations of the woman not be left to decide the point of the disease. Again, there may be exceedingly marked disease, and the ovarian and tubal complications small. Here it is well to remember that intestinal complications are often at the bottom of the size of the tumor, so that when adhesions are all freed, the mass that is to be removed is insignificant in its appearance, though examination made by floating the mass will disclose the multiplicity of the adhesions and their density. Another form of disease is the tubercular variety of ovarian inflammation. This is a most puzzling condition to deal with. We may examine and find what are apparently well-defined masses, but, on operating, discover nothing apparently justifying removal. Hence, in these cases, where it would seem that our diagnosis is at fault, as proven by operation, it is always advisable carefully to examine the appendages, to discover whether this condition does not obtain. In all the forms of inflammation under consideration, it is the tendency for the inflammation to be deposited in multiple locations. I mean that the abscess cavity is not apt to be single, but to consist of two or many pockets. This is due both to inflammatory strictures in the tube and to the different structures encountered in the inflammatory process. Hence, it is necessary to deal with all pelvic deposits as we know they must exist anatomically, taking into consideration their cause and the structures involved, and not treat them as hypothetical quantities under uncertain processes. If we consider the suppurating inflamed tube as an offending organ, quite as much so as the retained placenta, we cannot go astray in its treatment. It is just as logical to treat the remaining *débris* of labor as a benign and inoffensive residue as to look at this internal disease as harmless; indeed, it is much more rational, for the one has some

chance of escape, the other none. In this superficial and necessarily hasty consideration of my subject, I have, no doubt, passed over some points of interest. Whatever such has been omitted, or left obscure, or appears to be incorrect, I trust, will receive open discussion, free and unrestrained, for the truth is not to be hid nor patched. The surgery of the abdomen must stand on its logic and its results. If these are bad, it must fail. If these are unsubstantial, it is worthless.

500 North Twentieth Street.

Society Proceedings.

THE MEDICAL SOCIETY OF THE COUNTY OF ERIE.

Reported by ELI H. LONG, M. D., Secretary.

MORNING SESSION.

Semi-annual meeting held in the Y. M. C. A. Building, June 14, 1892. The President, Dr. W. W. Potter, called the meeting to order at 10 o'clock. The minutes of the annual meeting, held January 12, 1892, and of the two special meetings, held respectively February 20 and February 29, 1892, were read and adopted.

The committee on membership reported favorably upon the following-named candidates, who were duly elected members of the society, namely: Drs. W. J. Beutler, J. M. Hewitt, A. J. Colton, M. V. Ball, J. J. Drake, L. A. Denton, Mary J. Denton, H. U. Williams, J. T. Harris, E. J. Gilray, B. C. Johnson, A. E. Collins, and A. G. Bennett. The committee on membership further reported the receipt of applications for membership from the following named: Drs. Eleanor McAllister, Loren H. Staples, Carlos E. Bowman, Mary F. Greene, H. C. Leonhardt, Jane W. Carroll, Robert S. Hambleten, Frank J. Thornbury, Henry F. Carter, Charles H. Perry, and Alfred E. Diehl. These applications to lie over until the annual meeting in January, 1893, under the rule.

The special committee on the Practical Use of the Metric System, reported through its Chairman, A. L. Benedict, M. D., as follows:

REPORT OF THE COMMITTEE TO INVESTIGATE THE PRACTICAL USE OF THE METRIC SYSTEM.

Acting in accordance with the directions received at the January meeting, your committee, appointed to investigate the workings

of the metric system, soon issued a circular setting forth briefly the relations of the metric and apothecary's system. A return postal card was inclosed, asking replies to the following questions:

1. To what extent do you use the metric system?
2. Do you favor the adoption of the metric system?
3. What do you consider the principal obstacle to the adoption of the metric system?
4. What suggestions have you to offer bearing on this subject?

Although the aim has been to reach every member of the society, it is probable that not over 250 of the 270 members ever received the cards. Change of residence, loss in the mail, and consignment to the waste basket without reading, are reasons offered as explanations. Eighty-two, nearly a third of the total number of cards issued, have been returned filled out. The committee has been surprised and gratified both at the number of answers received and with the proportion who have expressed themselves as favoring the metric system. The eighty-two replies were assorted as follows:

1. From those who do not use the metric system at all, and who are opposed to its introduction—24.
2. Those who express themselves as indifferent as to whether the metric system is adopted or not—8.
3. Those who do not use the metric system, but who favor its adoption—16.
4. Those who use the metric system in a small proportion of their prescriptions, and who favor its adoption—17.
5. Those who use the metric system in at least fifty per cent. of their prescriptions, including a number whose use of the system is universal, or practically so—17.

The answers to the third question, What do you consider the principal obstacle to the adoption of the metric system? may, with two or three exceptions, be summed up under the one word, *conservatism*. This conservatism, however, is looked at in different lights by different men. One who does not use the metric system at all, answers, "ignorance and laziness," to the question. Several quote such sayings as "Let well enough alone," or "'Tis better to endure the evils which we have than fly to others which we know not of." Quite a few express the fear that the prevailing ignorance of the system among physicians and druggists would occasion serious mistakes. One gentleman, who has taken the pains to write an able

and courteous letter on the subject, speaks of the danger which might arise during an epidemic, when an unusually large number of prescriptions would tax the capacity of the drug store. Several writers have favored the adoption if it could be done suddenly and universally. The gentleman just referred to, however, states that a law compelling the use of the metric system in England had to be repealed after a year's trial, on account of the blunders which occurred. The committee is quite in harmony with his further suggestion, and that of several other gentlemen, that no one should attempt to use the metric system until he is assured of his ability to do so correctly. As an illustration of the mistakes which may arise from a partial knowledge of the subject, might be mentioned a criticism from an anonymous correspondent. Comparing the apothecary's with the metric column of the prescription, used as an illustration in the circular, and seeing that ten (10) grams stands opposite to four (4) drachms, and overlooking the fact that the apothecary's prescription is for a twenty-four dose mixture, while the metric prescription is for a twenty dose mixture, and apparently overlooking, too, the explicit statement that the transposition is approximate so as to avoid awkward arithmetical expressions, he assumes an error on the part of one member of your committee. We are glad that this point has been brought up, for it calls attention to two distinct ways of using the metric system. In one the prescription is thought out in the apothecary's system, in the other the prescription is from the beginning genuinely metric. In transposing from one system to the other, the amount given at a single dose should first be calculated, and this quantity should then be translated into the nearest aliquot part of a gram, and the metric prescription should then be constructed independently from the single dose. In the particular case referred to, the four drachms of the tincture of the chloride of iron, etc., divided by twenty-four, gives an individual dose of ten minims. It is represented in the metric prescription by a fifty centigram dose, that is to say, very nearly eight minims. If the dose had been translated exactly, the metric prescription would have called for thirteen and a fraction grams.

One gentleman states that the principal obstacle to the adoption of the metric system is the fact that he has always used the other system. Quite a number ascribe the trouble to the lack of proper instruction in the metric system in medical colleges, and to the fact that in clinical lectures and journal articles the apothecary's

system is usually employed. Many labor under what is certainly a misapprehension, that colleges of pharmacy do not prepare their graduates to dispense in the metric system. Two teachers in the University of Buffalo, and one in Niagara College, report that the medical students receive practical instructions in prescription writing in the metric system. Several replies contain the excellent suggestion that the metric system should be taught in public and private schools. Two or three gentlemen, curiously enough, oppose the metric system on the ground of its being French, forgetting the fact that the apothecary's system is not an American institution, nor even the special property of English-speaking nations. They also overlook the fact that the metric system, although originating with the French, has on its own merits so commended itself to Germany, Russia, Italy, Spain, Turkey, and, in fact, most foreign nations, that it is at present not a French but a cosmopolitan system.

Your committee represents, in its three members, various degrees of sentiment with regard to the metric system. It has endeavored to investigate the subject impartially, and to present in its report not so much its own opinions as the facts elicited by the replies to the circulars. About forty Buffalo physicians make, at least, partial use of the metric system, and about twenty-five[1] of these use it in fifty per cent., or more, of their prescriptions. Sixteen more physicians have been heard from, representing not only Buffalo but some of the smaller towns, who do not use the metric system, but who favor its adoption. The only objections offered to its use, in the replies to the circular, have been a disinclination to make a change and the danger of errors in compounding prescriptions. Among those who use the metric system are a number who write 2,000 or more prescriptions yearly, a physician whose general practice is probably as large as any in the city, two specialists who are acknowledged leaders in their respective branches, a man who has a large general and surgical practice, and who estimates his prescriptions at 6,000 annually. The committee would remind the members of the society that the metric system has been formally adopted in the United States Pharmacopeia, that Great Britain is the only nation of importance, besides the United States, that has not already put the metric system to a practical test and found it satisfactory; that, at least, two American wholesale drug houses

1. This number includes several who did not reply to the circular, and who are not counted in the table previously given.

have adopted it; that most of the other manufacturing chemists are paying some attention to it, especially in selecting for the amount of alkaloids contained in their pills such fractions of a grain as shall correspond to the milligram and its multiples; that the doses of most of the synthetic drugs, such as acetanilide, antipyrin, and the like, are established in those countries where the metric system is in use; that chemists and physicists do most of their calculating in the metric system; in short, that we are simply waiting for a current strong enough to loosen the anchor of conservatism from its hold on the rocks of habit and to bring our own barque into line with the vessels which carry the medical profession of other nations. Nothing succeeds like success, and nothing accomplishes so much as doing the work that lies before us. Let those who are prepared to use the metric system use it. Let those who feel that years of valuable and conscientious practice have established too firmly the habit of the older system, adhere to that. To clinical teachers, to editors of medical journals, and to writers of text-books, we look for such a double presentation of practical therapeutics as shall familiarize their hearers and readers with the metric system without detracting from the value which those accustomed to the apothecary's system may obtain from the subject.

On motion of Dr. W. W. Potter (Dr. Stockton in the chair), the report was accepted and the committee continued, with instructions to further pursue its investigations and report at the annual meeting, in January, 1893.

The report of the Board of Censors was then called for, when Dr. Edward Storck arose and stated that he had declined further to serve as chairman, but at the last annual meeting he had, nevertheless, been elected, and he now wished to present his resignation. Dr. Storck also gave notice of his intent to move at the next annual meeting that two members, who had previously been subjects of discipline by the society, be relieved from the censure resting upon them.

The Secretary presented the resignation of Dr. H. R. Hopkins as a member of the Board of Censors. The Chair directed that action be deferred on these resignations until the next annual meeting.

Under communications from abroad, the Secretary read a letter from the Medical Society of the State of New York, offering back volumes of the Transactions, and announcing the Merritt H.

Cash prize, which was open for competition by all members of county societies.

The scientific programme was then taken up, when the President, Dr. W. W. Potter, (Dr. A. A. Hubbell in the chair,) read a paper, entitled Asepsis and Antisepsis in the Lying-in-Chamber. This paper was discussed by Drs. J. C. Thompson, J. J. Walsh, W. C. Callanan, Joseph Price, L. S. McMurtry, Charles A. L. Reed, R. L. Banta, J. F. W. Ross, and the discussion was closed by Dr. Potter.

Dr. Chas. A. L. Reed, of Cincinnati, Secretary-General of the Pan-American Medical Congress, by invitation, then made some remarks on the development of the plan of the Congress, giving a synopsis of its history, and a *résumé* of its purposes.

The society then took a recess until 2.30 p. m.

AFTERNOON SESSION, 2.30 P. M.

The meeting was called to order promptly by the President, when Dr. James F. W. Ross, of Toronto, read a paper, entitled Actual, Not Text-Book, Experience with Cases of Ectopic Gestation. This paper was discussed by Drs. M. A. Crockett, W. S. Tremaine, F. W. Bartlett, Joseph Price, and in closing by the author.

The following group of papers was then read : Natural History of Pelvic Inflammation, by Joseph Price, M. D., of Philadelphia; The Relation of So-called Minor Gynecological Operations to Pelvic Diseases, by L. S. McMurtry, M. D., Louisville, Ky.; Methods of Early Diagnosis of Intra-Pelvic Diseases, by Charles A. L. Reed, M. D., of Cincinnati.

These papers were discussed in a group by Drs. Ingraham, Hayd, Hopkins, Price, Wells, McMurtry, and Reed.

Dr. H. R. Hopkins then offered the following :

Whereas, This society has had the rare privilege, at this meeting, of the presence of eminent and honored visitors and guests, viz. : Dr. James F. W. Ross, of Toronto ; Dr. Joseph Price, of Philadelphia ; Dr. Lewis S. McMurtry, of Louisville ; Dr. Charles A. L. Reed, of Cincinnati ; and Dr. Brooks H. Wells, of New York, and has also had the greater privilege and pleasure of listening to most profound and scholarly papers and practical and edifying discussions from these eminent visitors ; and,

Whereas, Professional courtesies of the kind just received by this society are only offered and received at the cost of great personal sacrifice of opportunity and energy ; therefore,

Resolved, That this, the Medical Society of the County of Erie, at its semi-annual meeting, June 14, 1892, does now and hereby tenders to Doctors Ross, Price, McMurtry, Reed, and Wells, a vote of thanks in testimony of its appreciation of their singular professional eminence and personal courtesy.

The preamble and resolution were adopted unanimously by rising vote.

The semi-annual meeting then, at 6.15 P. M., adjourned without day.

PAN-AMERICAN MEDICAL CONGRESS.

(*Official Bulletin.*)

BY-LAWS OF THE BOARD OF TRUSTEES.

The committee appointed to prepare by-laws for the government of the Board of Trustees, submitted the following report :

I. — Officers.

Sec. 1. The officers shall consist of a Chairman, a Secretary, who shall act as assistant secretary to the Secretary-General of the Congress, and a Treasurer.

§ 2. The Chairman shall be elected by ballot ; the Secretary shall be appointed by the Chairman, on recommendation of the Secretary-General ; the Treasurer shall be the person elected Treasurer of the Congress. These officers shall perform the duties usually performed by such officers.

§ 3. These officers shall hold office during the continuance of the corporation.

II. — Treasurer.

The Treasurer shall give a good and sufficient bond, in the sum of $25,000. He shall receive all registration fees, and all other moneys paid to the credit of the Congress, and shall disburse the same on vouchers approved by the Board of Trustees, signed by the Secretary-General and the Chairman of the Executive Committee.

III. — Executive Committee.

There shall be an Executive Committee, consisting of seven Trustees, who shall conduct the business of the Trustees in the intervals between the meetings of the Trustees, and shall report in full at each meeting.

IV.—The Committee of Arrangements.

The Committee of Arrangements shall consist of such number of physicians of the City of Washington, D. C., as may be determined upon and appointed by the President of the Congress, one member of which committee shall be designated by him as chairman. The Committee of Arrangements shall have charge of the facilities for registration, shall provide for transportation rates for physicians and their families attending the Congress, shall arrange for adequate hotel accommodations, shall arrange for an entertainment of the Congress, and issue the official programme of the meeting. All expense thus incurred shall be paid out of the funds previously appropriated for the purpose by the Executive Committee, payment of the same to be made by the Treasurer on the official voucher of the Congress countersigned by the Chairman of the Committee.

V.—Committee on Ways and Means.

A committee, not to exceed one hundred in number, shall be appointed by the President of the Congress, and shall be known as the Committee on Ways and Means, whose duty it shall be to devise and execute methods by which the necessary expenses of the Congress may be defrayed.

VI.—Expenditures.

Sec. 1. The Executive Committee may expend a sum not to exceed $3,000 prior to the meeting of the Congress, which sum shall include the expense of a stenographer for the Secretary-General. All bills contracted shall be paid as soon as funds in the hands of the Treasurer will permit.

§ 2. The Executive Committee shall designate all expenditures by the various officers before the same shall be contracted, providing that expenses already incurred by the Committee on Permanent Organization shall be paid out of any funds in the hands of the Treasurer of the Congress.

VII.—Meetings.

The first meeting of the Trustees shall be held in Detroit, Mich., on June 8, 1892. Thereafter all meetings shall be held at such time and place as the Executive Committee shall designate.

VIII.—Vouchers.

The form of vouchers hereunto annexed shall be the form used in the payment of all accounts by the Treasurer, and shall be in

duplicate, one for the Treasurer and one for the Secretary-General.

HENRY D. HOLTON,
W. T. BRIGGS,
JOHN B. ROBERTS.
Committee on By-laws.

FORM OF VOUCHER.

ORIGINAL.—For the Treasurer.
DUPLICATE.—For the Secretary-General. *No*.....

THE PAN-AMERICAN MEDICAL CONGRESS.

To.....*Dr.*

Date.

ORIGINAL.

Total in words, $.....

I CERTIFY the above account is correct and true; that the same is according to contract on file, or pursuant to order of.....under date of....189 , and duly authorized by the Executive Committee appointed by the Board of Trustees of the Pan-American Medical Congress.

.....*Secretary-General.*

The above account is hereby approved and the Treasurer instructed to pay the same.

Dated at....., ...189 . .....

Chairman of the Executive Committee.

Received of ABRAHAM M. OWEN, Treasurer, his cheque for..... dollars and.....cents, in full of the above account.

.....

[ENDORSEMENT.]

THE PAN-AMERICAN MEDICAL CONGRESS.

VOUCHER.
No....

ORIGINAL.

Name..... For ..... $.....

Duplicate signed and returned to the Secretary-General.

.....A. D. 189 .
.... *Treasurer.*

ORIGINAL—For the Treasurer.
DUPLICATE—For the Secretary-General. *No*.....

THE PAN-AMERICAN MEDICAL CONGRESS.

To.....*Dr.*

Date.

DUPLICATE.

Total in words, $.....

I CERTIFY the above account is correct and true; that the same is according to contract on file, or pursuant to order of.....under date of....189 , and duly authorized by the Executive Committee appointed by the Board of Trustees of the Pan-American Medical Congress.

.....*Secretary-General.*

The above account is hereby approved and the Treasurer instructed to pay the same.

Dated at....., ...189 . .....

Chairman of the Executive Committee.

Received of CHARLES A. L. REED, Secretary-General of the Pan-American Medical Congress, original certified and approved voucher for.....dollars and.....cents, in full of the above account.

.....

Treasurer.

[ENDORSEMENT.]

THE PAN-AMERICAN MEDICAL CONGRESS.

VOUCHER.

No....

DUPLICATE.

Name..... For..... $.....

Original duly certified and forwarded to the Chairman of the Executive Committee.

.....

Secretary-General.

DETROIT, Mich., June 7, 1892.

At a meeting of the Trustees of the Pan-American Medical Congress, held at the Russell House, Detroit, Mich., June 8, 1892, the foregoing by-laws were adopted by unanimous vote.

A. WALTER SUITER, M. D.,

Asst. Secretary-General for the Board of Trustees.

ASSOCIATION OF ERIE RAILWAY SURGEONS.

THE semi-annual meeting of the Association of the Erie Railway Surgeons was held at the Tifft House, in Buffalo, Tuesday, July 12, 1892. The Association was organized in Elmira last January, and includes all surgeons doing work on the Erie lines between New York and Chicago.

The following-named members were present: President, C. M. Daniels, of Buffalo; Vice-President, R. S. Harnden, Waverly; Drs. W. W. Appley, Cochecton; W. V. R. Blighton, Tonawanda; E. Griswold, Sharon, Pa.; W. B. Hubbs, Addison; John L. Eddy, Olean; M. D. Ellison, C. N. Bradsted, C. S. Parkill, M. J. Baker, B. C. Wakely, Charles R. Phillips, J. G. Kelly, Hornellsville; A. H.

Smith, Avon; William R. Blakeslee, Forest City, Pa.; Henry S. Durand, Rochester; J. E. Janes, Newark, N. J.; D. B. Van Wagenen, Suffern; A. E. Jenner, Dayton, O.; Fred C. Beals, Salamanca; S. L. Sweeney, Newburg, C. B. Kibler, Corry, Pa.; A. G. Ellinwood, Attica; E. M. Dooley, L. J. McAdam, Buffalo; George N. Hall, Binghamton; Charles G. R. Jennings, Henry Flood, Elmira; J. D. Zwetsch, Gowanda; Samuel Birdsall, Susquehanna, Pa.; James B. Stewart, Bradford, Pa.; George D. Crandall, Blossburg, Pa.; Henry A. Argue, Corning; and N. B. Johnson, Shohola.

Papers were read as follows: Traumatic Tetanus, A. G. Ellinwood, M. D., Attica, N. Y.; Surgical Dressings as Applied to Railway Injuries, J. G. Kelley, M. D., Hornellsville, N. Y.; Suggestions upon the Management of Railway Injuries and Modern Antiseptic Treatment, R. S. Harnden, M. D., Waverly, N. Y.; Progressive Surgery, George Chaffee, M. D., Brooklyn, N. Y.; Treatment of Fractures of the Humerus at the Elbow Joint, Henry Flood, M. D., Elmira, N. Y.; Surgery, Now and Then, E. Y. King, Richmond, O.; Restoration of Function in Contused Nerves, John P. Sawyer, M. D., Cleveland, O.; A Case of Fracture of the Skull, Charles G. R. Jennings, M. D., Elmira, N. Y.; Injuries to the Ankle, Webb J. Kelly, M. D., Galion, O.; Three Requisite G's for a Railway Surgeon, J. E. Janes, M. D., Newark, N. J.; Ins and Outs of the Profession, A. E. Jenner, M. D., Dayton, O.; Locomotor Ataxia, J. S. Dolson, M. D., Hornellsville, N. Y.

After the transaction of some routine business, and the adoption of a memorial relating to the death of Dr. W. T. Green, of Hornellsville, the meeting adjourned.

Cleveland was chosen as the next place of meeting; time, January 5, 1893.

Resorcin, one of the phenol derivatives, has stood the test of time remarkably well. Its most general use has been in skin affections, but good results have been obtained in whooping-cough and diphtheria, and in checking vomiting. Its anodyne effects may be increased until it acts, in large doses, as a hypnotic. Its antizymotic effects have proved very marked. There has been, recently, an increasing use in the treatment of the gastroenteritis of children. It apparently arrests fermentation in the alimentary canal. It has an advantage over calomel, when used in this affection, by not increasing cardiac weakness. It has repeatedly given good results in cases of septic poisoning from post-mortem examinations. It has now been long enough on trial to become officinal.—*Ephemeris.*

Progress in Medical Science.

INTERNAL MEDICINE.

Conducted by F. J. THORNBURY, M. D.

CHLOROSIS.

Prof. Pick, of Prague, with his characteristic progressiveness in the line of original investigation, now believes the underlying causative influence in chlorosis to be an anto-intoxication from absorbed ptomaine products in the stomach. He, therefore, washes out the latter each morning, and then administers some preparation of iron. In three or four weeks marked improvement is noticeable, and this in cases which have resisted other treatment for months. Drachm doses of creasote in sugar of milk prevents the abnormal fermentation caused by the undigested particles of food where the irrigation referred to cannot be practised, although washing out the stomach is a simple procedure, and one easily executed.

Atonicity and dilatation, with anorexia, fetid breath, feeling of distention after ingestion of food, followed by emetations and vomiting, the picture assumed in many cases of chlorosis, are rational indications for this method of treatment.

There is found, further, hyperacidity, but diminution of hydrochloric acid; the latter is supplied in the proportion of four parts of the pure acid to 1,000 of water, having the patient drink a glass of this solution after eating. This is Bouchard's method.

B-naplithal in doses of two grams, combined with two grams of salicylate of bismuth, are also efficient means of limiting the absorption of toxines from the gastric mucous membrane.

CHLOROFORM IN TYPHOID FEVER.

Dr. Werner (*Medical Brief*,) has treated 130 cases of typhoid fever with drachm doses of a one per cent. solution of chloroform. The results are stated to be very satisfactory. This is in accordance with the now well recognized germicidal action of chloroform on the typhoid bacillus first noted experimentally by Behring. Drachm doses of the above solution every two hours, continued after subsidence of the fever, diminishes the severity of the symptoms, and reduces the liability to a relapse.

DANGER OF HYPODERMIC SEPSIS.

For maintaining hypodermic needles pervious, and preventing them from rusting, the method recommended by Dr. T. M. Lawrence, (*N. Y. Medical Journal*,) that of filling the needle with vaseline and injecting any part of the latter which happens to remain after the piston is discharged, cannot meet with general approval, inasmuch as the vaseline, "harmlessly" injected, may contain bacteria.

Koch has long since demonstrated the impracticability of completely asepticising ointments and oils; many varieties of organisms may be cultivated from these media, permitting so imperfectly of dissemination of the antiseptic. The most efficient method of rendering the hypodermic needles and syringe sterile is to submerge them from three to five minutes in boiling water immediately before using. Then, to prevent rusting and maintain the needle pervious, dry heat should be applied, and the steel wire for the lumen should be passed through the flame.

ULCERATION OF THE LARYNX FOLLOWING INTUBATION.

This liability constitutes the chief objection to this operation, but may be obviated to a large extent by daily *ex*tubation during continuance of the treatment, removing the tube for thirty minutes, or longer, in each twenty-four hours, the object being to asepticise the canula, and relieve the compression on the delicate mucous membrane.

The ulceration is largely a compression necrosis favored by aggregation of the pus formers at the point of insult.

The writer has seen demonstrated, post-mortem, seven cases of diphtheria and croup with ulceration on the anterior wall of the larynx. Two cases of recovery were observed in which, resulting from the subsequent cicatricial contraction, stenosis occurred, necessitating tracheotomy for relief of the dyspnea.

Wiederhoffer lays special stress on the importance of the recognition of this liability to laryngeal ulceration by physicians who intubate to the exclusion of other methods, tracheotomy, laryngotomy, and laryngo-tracheotomy respectively.

BUFFALO MEDICAL AND SURGICAL JOURNAL.
A MONTHLY REVIEW OF MEDICINE AND SURGERY.

EDITORS:
THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.
All communications, whether of a literary or business character, should be addressed to the managing editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XXXII. AUGUST, 1892. No. 1.

PREVENTION OF PUERPERAL SEPSIS.

THE application of prophylaxis can have no more useful place than in the lying-in chamber. It is here that an ounce of prevention is worth many pounds of cure. It is doubtful whether puerperal sepsis can be cured in every instance of its invasion, but it is almost certain that it can be prevented in ninety-nine cases out of a hundred. The absorbing interest which is manifesting on this subject is apparent when medical societies in cities, towns and hamlets are everywhere discussing the question with a degree of earnestness, intelligence, and liberality that is as encouraging as it is instructive.

There can be no doubt that a great responsibility rests upon the obstetrician of today, greater than at any period in modern times. He must contest the ground with the abdominal surgeon for a record, and especially must he contest the field with the maternity physician for as good work in the mansion, the villa, the cottage, and the tenement house. The family physician, who is likewise the obstetrician in the rural districts, must be able to show as good a record as his brother who practises in the courts and alleys of the populous city, or as he who has the advantage service in the lying-in hospitals. A few years ago the crowded maternity was considered about the worst place in which a woman could be confined. It was often necessary to close up such an institution when invaded with an "epidemic" of puerperal fever. Now such a thing as closing a maternity by reason of a large number of consecutive deaths from puerperal sepsis is unknown. In a thousand cases we hear of scarcely a death, and there is no such thing as an "epidemic" of puerperal fever.

We have said that much responsibility rests upon the shoulders of the family physician in the rural districts, and he must look to

it that his cases are properly prepared for confinement by clean hands that are versed in all that is meant by the term "asepsis." When the general practitioner can be made to enforce the simplest rules of asepsis that he perfectly well understands, but is careless about enforcing, we shall soon hear almost nothing of puerperal fever or of ophthalmia neonatorum. It is not competent to plead lack of time or inconvenience in carrying out those simple details of cleanliness which are the foundation of prophylaxis in the lying-in chamber, and which must be insisted upon where human life is at stake, or loss of vision in the new-born is so often threatened.

TOPICS OF THE MONTH.

At a meeting of the Board of Trustees of the Pan-American Medical Congress, held at the Russell House, Detroit, June 8, 1892, Dr. Henry D. Holton, of Brattleboro, Vt., was elected Chairman; Dr. A. Walter Suiter, Secretary of the Board, also Assistant Secretary-General of the Pan-American Medical Congress; and Dr. A. M. Owen, Treasurer of the Congress, was elected Treasurer of the Board of Trustees. Dr. L. S. McMurtry, of Louisville, Dr. Henry D. Holton, of Brattleboro, and Dr. W. W. Potter, of Buffalo, were elected to be members of the Executive Committee.

Dr. William Pepper, of Philadelphia, President of the Pan-American Medical Congress, addressed the American Medical Association at Detroit, on Thursday, June 9, 1892, upon the important mission of the Congress and the relations of the profession throughout the United States thereto. He spoke as follows:

Mr. President and Members of the American Medical Profession:

It is fitting I should appear thus before you, since it is to the authority of the American Medical Association that the Pan-American Medical Congress owes its existence; and since it is in the name of the entire American medical profession, that it proposes to secure the fullest recognition by the National Government.

From the moment that the suggestion of this Congress, to be held in the year 1893, ever memorable as the anniversary of Columbus's immortal discovery, was made by Dr. Reed, of Cincinnati, and his far-sighted and enthusiastic associates, it seemed to me a proposal of large importance. The hand of destiny is manifestly shaping the relations of all the countries of our Western Hemisphere, and no one can fail to recognize the close and cordial reciprocity which is to bind them together.

In no direction are such close reciprocal relations more desirable than between the medical professions of these countries. United as we are all, happily, coming to be in the maintenance of a standard of medical education which will soon challenge comparison with that of Europe, it is of practical moment that Canada, the United States, and the Latin-American countries shall grow familiar with the educational methods and facilities of each other. Possessing, as this vast stretch of territory does, the most admirable health resorts in every latitude, at all elevations, and adapted to every demand of medical science, it is important that opportunities shall be created for diffusing throughout the profession of the Hemisphere the fullest knowledge of these advantages.

United as these countries are destined to be in the most extensive commercial operations, there are problems of international hygiene and sanitation whose scientific discussion and wise solution will favorably affect the prosperity and happiness of great communities.

On behalf of my colleagues, who have honored me with a call to the important duty of presiding over the first Pan-American Medical Congress, I wish to assure you that we shall so administer the trust reposed in us that the large interests above mentioned shall be promoted.

The organization already effected seems so fully representative of the entire country, the indications of sympathy and favor on the part of the National Government are so encouraging, the responses already received from our neighboring countries are so numerous and cordial, that we may look forward with assured confidence to a great congress of the profession of the entire Western Hemisphere, united in fraternal spirit to promote these sacred purposes,—the advancement of science, the elevation of education, and the prevention and mitigation of disease.

His address was well received, and will do much to stimulate an interest in the Congress amongst the American medical profession.

Dr. Charles A. L. Reed, of Cincinnati, then offered the following, which was unanimously adopted :

Resolved, That the thanks of the American medical profession be and are hereby extended to the Hon. John Sherman, United States Senator for Ohio, and to the Senate Committee on Foreign Relations, for their services in securing the adoption of the Senate Bill (No. 76), authorizing and requesting the President to extend an invitation to the governments of the Western Hemisphere to send delegates to the Pan-American Medical Congress, and that concurrence in this resolution is hereby invoked at the hands of the House of Representatives and of the President of the United States.

We have spoken of the importance of good roads, in the columns of this journal on several occasions. The subject has been agitated all over the State by prominent citizens, but the interest has now

become general throughout the country, and a memorial to Congress on the subject of a comprehensive exhibit of roads, their construction and maintenance, at the World's Columbian Exhibition, has been prepared under the direction of Col. Albert A. Pope, of Boston. This memorial is a brochure of 110 pages, consisting of sayings of prominent men on the subject of good roads, and paragraphs from newspapers and periodicals also relating to that subject. It is to be hoped that some action will be taken by the authorities in this State that will insure to its citizens a more substantial and better system of highways. The Empire State is noted for progress in all directions, but it is singularly backward in regard to its roads. Nothing could be more shockingly disgraceful than the country roads in most portions of the State during the Spring and Fall seasons. Physicians are greatly interested in this subject, hence we once more call attention to it.

Ex-Governor J. B. McCreary, representative in Congress from Kentucky, reported to the House on Thursday, July 7, 1892, a bill to authorize the President to invite the Government of Mexico and the Governments of the republics of Central and South America to send delegations, composed of prominent physicians, to the Pan-American Medical Congress, to be held in the City of Washington, in September, 1893. On Thursday, July 14th, Gov. McCreary asked unanimous consent for consideration of the bill, which was granted. After explaining its provisions, the bill was passed without a dissenting vote. Physicians throughout the whole country have taken great interest in this Congress, and especially in the passage of this bill, which gives it governmental sanction. The Pan-American Medical Congress, under the able officers chosen, seems to be moving to a surely successful issue. Physicians in Buffalo and vicinity who desire to become members should forward their initiation fee, $10, promptly to the Treasurer-General, Dr. A. M. Owen, of Evansville.

The Buffalo International Exposition will be held during the ten days beginning August 17th, and ending August 27, 1892. The fair consists of four departments, namely: A Southern Department, Department of Flowers and Plants, Department of Electrical Appliances, and a Department pertaining to Live Stock. The admission fee at the gate will be fifty cents, and the manager, Mr.

Geo. M. Robinson, who is experienced in the conduct of expositions, is entitled to encouragement in this Buffalo enterprise. We acknowledge an invitation to an old-time Southern possum supper, to be given on the grounds of the exposition in the afternoon of August 17th, in the Southern department of which the Hon. John D. Patrick, of Raleigh, N. C., is manager.

The Second Bulletin of the Harvard Medical School Association, together with the Catalogue of the Alumni, has appeared. These bulletins are the handsomest alumni records that we have seen, and reflect credit upon the famous institution and its distinguished alumni association. The bulletins may be obtained upon application to the secretary, Dr. Robert Williamson Lovett, 379 Boylston street, Boston, Mass.

Personal.

Lewis S. McMurtry, A. M., M. D., of Louisville, Ky., has been elected to the Chair of Gynecology in the Hospital College of Medicine, which is the Medical Department of the Central University of Kentucky.

To say that this is a most fitting appointment for the college to make, is only to repeat what everybody who knows Dr. McMurtry, will assent to. The advantages to the college will be very great in having so experienced a teacher, a man of so many qualities — social, scientific, and professional — in its faculty.

Dr. McMurtry will have agreeable associates in the college, which is one of the strongest in the south. The Hospital College of Medicine has taken a foremost stand with reference to advanced medical education, and its President, Dr. Dudley S. Reynolds, is, perhaps, the most conspicuous champion of the cause in the south. We shall take pleasure in soon recording Kentucky among the list of States with separate Medical Examining and Licensing Boards.

Dr. Albert L. Gihon, of New York City, Medical Director U. S. Navy, delivered the address on General Medicine at the recent meeting of the American Medical Association, in Detroit. Dr. Gihon assumed the responsibilities of this duty on short notice, owing to an affliction which had befallen the regular appointee, and it is not an exaggeration to affirm that a better selection could

not easily have been made. The subject of the address was Intellectual Progress in Medicine, which was handled with exceptional ability, and received the approbation of the entire assemblage, that culminated in a unanimous vote of thanks to the distinguished author.

Dr. Hunter McGuire, of Richmond, Va., was elected President of the American Medical Association, at Detroit, to serve for the ensuing year. This honor could not easily have fallen upon more competent shoulders or to the hands of a more popular man. Dr. McGuire has a strong following of friends throughout the south and southwest that are only warmer in their admiration than those of the north and northeast, because they are nearer to him geographically. The hearts of all, whether residing north, south, east, or west, are equally warm in their manifestations of approval of Dr. McGuire's election.

Dr. R. Stansbury Sutton, of Pittsburg, Pa., accompanied by his daughter, remained a night in Buffalo, in July, on his way to Penetanguishane, Ont., Canada, where he will spend a month's vacation. Dr. Sutton has lately been appointed gynecologist to the Allegany Hospital, which has been especially fitted up with a modern operating room for his convenience. This, together with his private hospital, gives Dr. Sutton ample facilities for the continuance of the practice of abdominal surgery, for which he has a record of success which is among the first in this country.

Dr. Edward R. Palmer, of Louisville, was elected President of the American Association of Andrology and Syphilology. This is a deserved recognition of the talent and skill of one of the most distinguished members of this association. We predict a successful year for the society under his administration.

Dr. Henry J. Mulford announces his removal from 415 Delaware avenue to the Fillmore, 107 Delaware avenue, Buffalo, where he will continue the special practice of laryngology.

Dr. A. Walter Suiter, of Herkimer, has been appointed consulting physician to the New Faxton Hospital, at Utica, N. Y.

Society Meetings.

The American Social Science Association will hold its next general meeting at Saratoga, beginning Monday, August 29th, and closing Friday, September 2, 1892. On Wednesday, August 31st, the Department of Health will hold forth with the following programme :

9.00 A. M., remarks by the Chairman of the Department, Frederick Peterson, M. D., of New York ; 9.30 A. M., a report by the Secretary of the Department, W. D. Granger, M. D., on the Work of the Health Department since its Organization; 10.00 A. M., a paper by Matthew D. Field, M. D., of New York, on the Examination and Commitment of the Public Insane in New York City ; 10.30 A. M., a paper by Ralph L. Parsons, M. D., of Sing Sing, N. Y., on Voluntary Commitment of the Insane to Asylums ; 11.00 A. M., discussion of the preceding papers ; 12.00 M., a paper by Henry Ling Taylor, M. D., of New York, on American Children, Hygienically Considered, followed by debate ; 8.00 P. M., an address by W. W. Keen, M. D., of Philadelphia, on the Modern Surgery of the Brain ; 9.00 P. M., a paper by Frederick Peterson, M. D., of New York, on the Old and the New Phrenology.

The American Microscopical Society will hold its fifteenth annual meeting at Rochester, N. Y., Tuesday, Wednesday, and Thursday, August 9, 10, 11, 1892.

The Mississippi Valley Medical Association will hold its eighteenth annual session at Cincinnati, Wednesday, Thursday, and Friday, October 12, 13, and 14, 1892, under the presidency of Charles A. L. Reed, M. D., Cincinnati. An excellent programme, containing the best names in the valley and covering the entire field of medicine, will be presented. An address on Surgery will be delivered by Dr. Hunter McGuire, of Richmond, Va., President of the American Medical Association. An address on Medicine will be made by Dr. Hobart Amory Hare, Professor of Therapeutics and Clinical Medicine, Jefferson Medical College, Philadelphia. The social as well as the scientific part of the meeting will be of the highest order. The officers of the Pan-American Medical Congress will hold a conference at the same time and place.

The Medical Society of Wyoming County met at Portage, on Thursday, July 14, 1892, for scientific work. Dr. Robert Rae, of Portageville, was elected President; Dr. George S. Staif, of Gainsville, Vice-President; and Dr. P. S. Goodwin, of Perry Center, Secretary and Treasurer. The next regular meeting will be held at Silver Lake, September 8th, when a large attendance is expected.

The Lake Erie Medical Society held its regular quarterly meeting at the residence of Dr. J. G. Thompson, Angola, N. Y., on Friday, July 15, 1892. The following-named members were present:

Dr. T. H. Johnston, Brant; Dr. G. B. Stocker, Angola; Dr. F. E. Tuttle, Leon; Dr. George Lattin, Cattaraugus; Dr. N. G. Richmond, Fredonia; Dr. J. J. Sharp, Silver Creek; Dr. C. C. Johnson, Gowanda; Dr. M. B. Shaw, Eden; Dr. D. G. Alling, Dunkirk; Dr. R. M. Evarts, Irving; Dr. J. Cherry, Eden; Dr. W. A. Putnam, Westfield; Dr. J. G. Rugg, Gowanda; Dr. W. J. French, Hamlet; Dr. A. D. Lake, Gowanda; Dr. D. D. Loop, North East; Dr. E. E. Davis, Forestville; Dr. William Teft, South Dayton; Dr. W. M. Ward, North Collins; and Dr. J. G. Thompson, Angola.

Dr. B. H. Daggett and Dr. William Warren Potter, of Buffalo, were present by invitation.

The following list of papers was read and discussed, namely: Gout, by Dr. C. C. Johnson, of Gowanda; Infantile Indigestion, by Dr. W. M. Ward, of North Collins; Urethritis, its Treatment by Hot Water Irrigation, by Dr. B. H. Daggett, of Buffalo, by invitation; Puerperal Fever, by Dr. E. E. Davis, of Forestville.

The group of papers read was interesting, and the discussions were able and instructive. This active and progressive Society is to be commended upon the useful work that it performs. The Society was entertained, on this occasion, by Dr. and Mrs. Thompson, and it is almost unnecessary to add that the social and intellectual features of the meeting kept pace with each other in a neck-and-neck race.

The officers of the Society for the present year are: R. E. Moss, M. D., President, Gowanda; J. Cherry, M. D., Vice-President, Eden; William Teft, M. D., Secretary and Treasurer, South Dayton; Committee on Programme, George Lattin, M. D., Cattaraugus; C. C. Johnson, M. D., Gowanda.

The American Public Health Association will hold its twentieth annual meeting in the City of Mexico, Tuesday, Wednesday, Thurs-

day, and Friday, November 29th and 30th, and December 1 and 2, 1892. A large attendance is expected and special excursion rates are arranging.

Prominent sanitarians and scientists from the United States, Canada, Mexico, Central and South American Republics, will take active part in the meeting. The President is Dr. Felix Formento, of New Orleans, and the Secretary is Dr. Irving A. Watson, of Concord, N. H., who will furnish any further information desired.

Dr. Edward Clark, of Buffalo, is a member of the Executive Committee, who can also be consulted on any subjects relating to the meeting. Dr. F. P. Vandenburg, of Buffalo, is a member of the Committee on Polution of Water Supplies. Dr. Edward Clark, of Buffalo, serves on the Committee of Disposal of Garbage and Refuse, and Dr. Walter D. Greene, of Buffalo, is a member of the Committee on the Cause and Prevention of Diphtheria. It will be observed that our city is prominently identified with the conduct of affairs in this prominent medical organization.

Obituary.

Dr. E. G. Harding, of Wyoming, N. Y., was drowned while bathing in the Oatka, on Saturday, July 9, 1892. Dr. Harding was an alumnus of Buffalo University Medical College, a prominent physician in the region of his residence, and will be sadly missed by a large clientèle. In addition to his professional work, he performed the duties of Deacon in the Baptist church, was President of the Board of Education, and prominent in all the business and local interests of his village and vicinity. His funeral was attended on Tuesday, July 12th, by a large concourse of friends, relatives, patrons, and acquaintances. He leaves a wife and a number of children who have the tenderest sympathy of the community.

Dr. D. V. Stranahan, of Warren, Pa., is dead at the age of forty-five years. He was the son of Dr. D. V. Stranahan and brother of Dr. J. L. Stranahan, of Erie, Pa. He graduated from the University of Buffalo in 1872, and had been in active practice until four years ago, when he was stricken with paralysis, since when he attended only to his office work. He enjoyed a large and lucrative practice, and was held in the highest esteem by his fellow-citizens.

Book Reviews.

TRANSACTIONS OF THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION. Vol. IV. Fourth session. Held at Richmond, Va., November 10, 11, 12, 1891. Edited by WILLIAM E. B. DAVIS, M. D., Secretary. Published by the Association. Philadelphia: Wm. J. Dornan, printer.

This volume is a record of the work done by this excellent association at its fourth annual meeting, held in Richmond, Va., in November, 1891, under the presidency of Dr. Lewis S. McMurtry, of Louisville. The book teems in interest from beginning to end, and it would be difficult to discriminate or to decide where to begin criticism, unless it be that criticism which culminates in praise.

The distinguished President chose for the subject of his address, A Plea for Progressive Surgery, in which he brings a terrible indictment against those so-called conservatives who, under the seductive mistake of conservative surgery, would condemn many women to a prolonged invalidism or else to woeful suffering, whose only termination can be in a slow but never-failing death. McMurtry starts out with the definition of the word "conservative," taken from Webster, which is, "Having power to preserve in a safe or entire state, or from loss, waste or injury." He protests against the perversion of the word "conservatism" from its true meaning, as given above, to that when it is applied, as it frequently is, to retard progress in surgery, and thus prevent that loss, waste, or injury from which it is expected to rescue the sufferer.

Dr. McMurtry has done the profession a great service in thus calling attention to the mistaken ideas and to the false teachings of the so-called conservatives. A surgeon is always conservative, in that he would not use the knife unnecessarily, but when men get up in medical meetings to announce the fact that they do not believe in this or that operation because someone has said that tyros have performed it unnecessarily, or because, perchance, some heretofore great leader changes front and announces himself an advocate of electricity, where previously he used the knife, it is time that the skilful abdominal surgeon, of which Dr. McMurtry is the type, shows up the distinction and contrasts the difference between a true conservatism, which would preserve from injury, loss, or death, by removing hopelessly diseased structures, and that

false application of the term which seductively betrays into the very mire of disaster.

Dr. McMurtry deservedly castigated those men who in discussions flippantly allude to the "castration of women," to the "removal of ovaries," to "spaying," and to other improper terms, for the purpose of covering their own ignorance, and so planting themselves across the path of progress in the great movement towards improved pelvic surgery, by which, to use Dr. McMurtry's own words, hundreds and thousands of lives are saved.

When a diseased ovary or tube has passed beyond the reach of ordinary remedies that have been many times successful in their cure, when their structures have become hopelessly changed, and their functions destroyed, thereby threatening either life itself, or dooming the patient to prolonged or hopeless ill-health, there is no more striking example of true conservatism than in the surgeon that would at once remove these offending organs or structures.

The men who have carefully studied the anatomy and pathology of the pelvis and the abdomen, and have perfected themselves in the technique of pelvic and abdominal surgery, so that the records of their successes are very nearly one hundred per cent., are not to be shouted down by this dangerous misapplication of conservatism.

Among the more important papers read at this meeting may be enumerated the following: Albuminuria, its Relations to Surgical Operations, by J. W. Long, M. D., of Randelman, N. C.; Remarks on Systemic Infection from Gonorrheal Poisoning, by Bedford Brown, M. D., of Alexandria, Va.; Complications in Pelvic and Abdominal Surgery, and How to Deal with Them, by Joseph Price, M. D., of Philadelphia; Medico-Legal Aspect of Intestinal Surgery, by John D. S. Davis, M. D., Alabama; the Pedicle in Hysterectomy, by I. S. Stone, M. D., of Washington, D. C.; Injury to the Pelvic Floor, and the Method of Repairing the Same, by Thomas Addis Emmet, M. D., of New York; the Surgical Treatment of Anterior Displacement of the Uterus, by Charles A. L. Reed, M. D., of Cincinnati; the Part the Shoulders Play in Producing Laceration of the Perineum, with Suggestions for its Prevention, by W. D. Haggard, of Nashville; the Present Aspect of Cerebral Surgery, by Landon Carter Gray, M. D., of New York; the Venomous Reptiles of the United States, with the Treatment of Wounds Inflicted by Them, by Paul B. Barringer, M. D., of the University of Virginia.

The discussions on the several papers were of an interesting

and instructive nature, and served to accentuate the teachings that the authors aimed to evolve in the text. The lights and shadows which strong discussions bring out are oftentimes useful in strengthening an author's position, as well as occasionally developing his weaknesses. In other words, such discussions serve to separate the chaff from the grain, and that has been most amply demonstrated in the volume before us. It is well illustrated with numerous wood-cuts and plates, while the printing and binding is in the best style of modern book art. Every progressive surgeon and gynecologist should subscribe to the annual volumes of this society.

A System of Practical Therapeutics. Vol. III. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; assisted by Walter Chrystie, M. D. In three volumes, comprising 3,544 pages, with 434 illustrations. Per volume, cloth, $5.00; leather, $6.00; half Russia, $7.00. Sold by subscription only. Philadelphia: Lea Brothers & Co. 1892.

Following out the plan in our review notice of Volumes I. and II., by giving the contents, we here announce Volume III. in a like manner, the contents of which embrace the following subjects:

Diseases of the Skin.—Disorders of Secretion, by H. Radcliffe Crocker, M. D.; Inflammations of the Skin, by W. A. Hardaway; Hypertrophies and Atrophies of the Skin, by James Nevins Hyde, M. D.; Neuroses and Parasites of the Skin, by Milton B. Hartzell, M. D.

Diseases of the Nervous System. — Hospital Treatment of Insanity, by Edward N. Brush, M. D.; The Medical Treatment of Insanity, by H. M. Bannister, M. D.; Chorea, by B. Sachs, M. D.; Epilepsy and Tetanus, by J. Chalmers DaCosta, M. D.; Locomotor Ataxia, Acute Infantile Spinal Paralysis, Myelitis, and Amyotrophic Lateral Paralysis, by M. Allen Starr, M. D.; Apoplexy, Brain Tumor, Spinal Tumor, Meningitis, Cerebritis, and Neuritis, by Charles K. Mills, M. D.; Disorders of Sleep, by Landon Carter Gray, M. D.; Headaches and Neuralgia, by Wharton Sinkler, M. D.; Nervous Disorders and Paralysis from Excessive Use of the Parts Affected, Vertigo, Tremor, and Lead Poisoning, by Eugene Riggs, M. D.; Cerebral Concussion and Shock, by Joseph Ransohoff, M. D.; Morbid Habits, by T. D. Crothers, M. D.; Localized Spasms, Localized Palsies, Facial Hermiatrophy, by F. X. Dercum, M. D.

Diseases of the Genito-Urinary Apparatus. — Nephritis, Pyelitis, Phosphaturia, Chyluria, Albuminuria, Lithuria, Oxaluria, and Diabetes Insipidus, by Andrew H. Smith, M. D.; Gonorrhea and its Complications, Stricture, Cystitis, Hypertrophy of the Prostate, Atony of the Bladder, and Vesical Calculus, by J. William White, M. D.; Diseases of the Prepuce, Glans, Penis, and Testicles, by Edward Martin, M. D.; Diseases of the Vulva and Vagina (Non-Venereal), Leucorrhea, by T. J. Watkins, M. D.; Diseases of the Uterus, by R. L. Dickinson, M. D.; Amenorrhea, Dysmenorrhea, Menorrhagia, and Sterility, by Hunter Robb, M. D.; Diseases of the Broad Ligaments, Tubes and Ovaries, by Howard A. Kelly, M. D.; Diseases of Pregnancy, Parturition, and of the Puerperium, Extrauterine Pregnancy, and Abortion, by Barton Cooke Hirst, M. D.

Diseases of the Eye.—General Considerations of the Treatment of the Eye and its Disorders, by W. F. Mittendorf, M. D.; Diseases of the Conjunctiva, Sclera, and Cornea, by George E. DeSchweinitz, M. D.; Diseases of the Iris and Ciliary Body; Sympathetic Affections, by Charles J. Kipp, M. D.; Diseases of the Optic Nerve, Retina, Choroid, and Vitreus; Amblyopia and Amaurosis, by S. C. Ayres, M. D.; Diseases of the Lens and Glaucoma, by Swan M. Burnett, M. D.; Diseases of the Orbit, Lachrymal Apparatus and Eyelids, by Henry Graddle, M. D.; Diseases of the Ocular Muscles, Paralytic and Concomitant Squint, Asthenopia, Spasms of the Ocular Muscles, and Nystagmus, by Lucien Howe, M. D.; Optical Therapeutics; Normal and Abnormal Refraction; Presbyopia, Principles Involved in Fitting Glasses, by Edward Jackson, M. D.; Injuries of the Eye and its Appendages, by F. Buller, M. D.

Diseases of the Ear.— Diseases of the External Ear and Tympanic Membrane, by B. Alexander Randall, M. D.; Acute Diseases of the Middle Ear, by Robert Barclay, M. D.; Chronic Purulent Disease of the Middle Ear, by Samuel Sexton, M. D.; Chronic Catarrh of the Middle Ear, and Disease of the Internal Ear, by Charles H. Burnett, M. D.

The scope of this work is beyond that of any previous one on the subject. It is an evidence of great enterprise on the part of the publishers, and of stupendous energy and work on the part of the editor. Whatever may be said with reference to the value of perfection in the important departments of anatomy, physiology, and pathology, the goal, after all, is the treatment of disease, and

work which contributes to its successful management is to be looked upon as of vast use to humanity. It cannot be denied that therapeutic resources, whether the treatment be confined to the mere administration of drugs, or allowed its more extended application to the management of disease, have so greatly multiplied within the last few years as to render previous treatises of little value. Herein will be found the great value of Hare's encyclopedic work, which groups together within a single series of volumes the most modern methods known in the management of diseases, and especially does it deal with important subjects comprehensively, which could not be done in a more limited treatise. This last volume will possess interest for the obstetrician and gynecologist where they will find, at least, two hundred pages devoted to these two departments. These pages are copiously illustrated, and add much to the interest in the work.

We cannot commend Hare's System of Practical Therapeutics too highly, because, even admitting what must always be admitted with reference to every such product, numerous imperfections, it still stands out first and foremost as a work to be consulted by authors, teachers, and physicians, throughout the world.

TREATISE ON THE DISEASES OF WOMEN, for the use of students and practitioners. By ALEXANDER J. C. SKENE, M. D., Professor of Gynecology in the Long Island College Hospital, Brooklyn, N. Y.; formerly Professor of Gynecology in the New York Post-Graduate Medical School; Gynecologist to the Long Island College Hospital; President of the American Gynecological Society, 1887; Corresponding Member of the British, Boston, and Detroit Gynecological Societies, of the Royal Society of the Medical and Natural Society of Brussels, and of the Leipzig Obstetrical Society; Fellow of the New York Academy of Medicine; Ex-President of the Medical Society of the County of Kings; Ex-President of the New York Obstetrical Society. Second edition, revised and enlarged, with 251 engravings and nine chromo-lithographs. New York: D. Appleton & Co. 1892.

When the first edition of this work appeared, we gave it an extended analytical review. (See Vol. XXVIII., page 345, January, 1889.) The second edition presents very little change in the make-up of the treatise or in the general arrangement of the text. New chapters have been added on Ectopic Gestation, Diseases and Injuries of the Ureters, Vesical Hernia and its Surgical Treatment, and the latest views of the author have been given in the discussion of Laparatomy, Ovaritis, and Injuries of the Cervix Uteri and Pelvic Floor.

The 251 wood engravings and nine chromo-lithographs serve to illustrate the text in a pointed and useful manner. Skene's treatise has become a text-book in a large number of the medical colleges of the land, hence a new edition has become necessary. Nothing has appeared from the press of late years that can be compared to it or compete with it in any way, except Pozzi's elaborate treatise lately issued. These two will serve to supply the needs for gynecological text-books for sometime to come, providing new editions are put forward with sufficient frequency to keep pace with the progress in the art. We have no doubt the enterprising publishers and the able authors of both these works will see to it that this is done. When we reviewed Skene's first edition, we accorded it the first place in text-book gynecological literature, and we are satisfied from comparison of the two editions that the author is laboring to keep it abreast of gynecological progress. It is a credit to the distinguished author, and a useful, if not necessary, volume for the specialist, teacher, and general practitioner.

International Clinics: A Quarterly of Clinical Lectures on Medicine, Surgery, Gynecology, Pediatrics, Neurology, Dermatology, Laryngology, Ophthalmology, and Otology. By Professors and Lecturers in the leading medical colleges of the United States and Great Britain and Canada. Edited by John M. Keating, M. D., Philadelphia, Consulting Physician for Diseases of Women to St. Agnes' Hospital, Philadelphia; Editor Cyclopedia of the Diseases of Children.—J. P. Crozer Griffith, M. D., Philadelphia, Clinical Professor of Diseases of Children in the University of Pennsylvania; Professor of Clinical Medicine in the Philadelphia Polyclinic.—J. Mitchell Bruce, M. D., F. R. C. P., London, England, Physician and Lecturer on Therapeutics at the Charing Cross Hospital. And David W. Finlay, M. D., F. R. C. P., London, England, Physician to the Middlesex Hospital, and to the Royal Hospital for Diseases of Chest; Lecturer on Clinical Medicine in the Middlesex Hospital Medical School. Philadelphia: J. B. Lippincott Co. 1891.

The contents of Volume III. of this interesting and valuable periodical publication indicates its continued prosperity and improvement. Acute Intestinal Obstruction is discoursed upon by W. T. Gairdner, M. D., of Glasgow; Hodgkin's Disease, by Richard Lea Macdonald, M. D., of Montreal; Tubercular Peritonitis, by J. F. Goodhart, M. D., and George Carpenter, M. D., of London; Potts's Disease of the Spine, by V. P. Gibney, M. D., of New York; Tumors of the Bladder, by F. Sedgwick Watson, M. D., of Boston; Syphilis, by A. H. Ohman-Dumesnil, M. D., of St. Louis;

Abdominal Hysterectomy, by Henry T. Byford, M. D., of Chicago; Removal of Uterine Appendages, by F. H. Champneys, M. D., of London; Pyosalpinx, etc., by Clinton Cushing, M. D., of San Francisco; Lamellar Cataract, etc., by David Webster, M. D., of New York; Fibro-Sarcoma of the Naso-pharynx, by E. Fletcher Ingals, M. D., of Chicago: Vegetable Parasitic Disease of the Skin, etc., by Henry G. Piffard, M. D., of New York. These are only a few of the titles that we have selected for mention on account of their especial interest. They are taken at random from among a large group of interesting papers on a very wide range of subjects that fill this book. We have heretofore expressed our opinion as to the propriety of publishing this class of literature. We think it is an improvement over the voluminous text-books which contain so much and are read so little. The short monographs, which are called clinical lectures, published in the International Clinics, deserve and will receive careful examination at the hands of every physician who is interested in the several subjects of which they treat.

ENCYCLOPEDIA OF MEDICINE AND SURGERY. By various writers, enlarged, upon a new system, which embodies the methods of treatment employed by eminent practitioners of medicine. Compiled under the direction of the publishers, and including the writings of Drs. John Abercrombie, E. C. Beale, C. E. Beevor, Sydney Coupland, Frederick F. Eve, G. P. Field, J. K. Fowler, Wm. Gay, W. B. Hayden, G. E. Hermance, Victor Horsley, Henry Juler, C. B. Keetley, and others. New York: J. B. Flint & Co. 1892.

This large octavo, double-column volume of 738 pages contains a brief *résumé* of diseases and injuries, beginning with "Abdomen Injuries of the," and ending with "H." The general plan of the book is to give a concise definition of the practical subjects embracing the science of medicine and surgery, and particularly to give especial force and impact to the treatment of disease.

Publishers are constantly putting forth reference books that are of great value to the profession, and this one is no exception to the rule, but we question very much the continuation of this form of literature beyond the present lines laid down. There are so many of these reference works published that a library could easily be filled with them, to the exclusion of everything else. They tend to invite superficiality of research. The one before us is, as we intimated, of the better sort, and is easily worth the price it is offered at.

BACTERIOLOGICAL DIAGNOSIS: Tabular Aids for Use in Practical Work. By JAMES EISENBERG, Ph. D., M. D., Vienna. Translated and augmented with the permission of the author from the second German edition, by Norval H. Pierce, M. D., Surgeon to the Out-Door Department of the Michael Reese Hospital; Assistant to Surgical Clinic, College of Physicians and Surgeons, Chicago, Ill. Philadelphia and London: The F. A. Davis Co., Publishers. 1892.

These tables are arranged in excellent order, and for the laboratory student are exactly what is wanted. The bacteria are classified into pathogenic, non-pathogenic, and fungi. The non-pathogenic are further divided into those which liquefy gelatin, and those which do not liquefy gelatin. The pathogenic are divided into those which can be cultivated outside the human body and those which cannot be so cultivated. Each bacillus or germ is allotted one full page, and here is then tabulated its characteristics, as place found, form and arrangement, mobility, growth, culture, spore formation, aerobiosis, gas production, gelatin reaction, color production, and pathogenesis. Besides, the name and date of the discoverer is given, and the literature where it can be found. An appendix, describing carefully the technique used in the cultivation and staining of bacteria, follows.

Taken as a whole, the tables are of great assistance to students, and the efforts of author and translator are to be commended, while the press-work, by the F. A. Davis Co., is nicely executed.

W. C. K.

Miscellany.

CIVIL SERVICE EXAMINATIONS.—An open competitive examination of candidates for Junior Assistant and Female Physicians, to fill vacancies in the medical staff of the several State Hospitals, will be held at rooms of the Civil Service Commission, in Albany, August 24, 1892. Salary of Junior Assistants, $1,400 and board; Female Physicians, $1,200 and board. For further information, apply by mail to Clarence B. Angle, Secretary, Albany, N. Y.

JOHN B. RILEY,

ALBANY, N. Y., July 20, 1892. *Chief Examiner.*

NOTICE TO CONTRIBUTORS.—We are glad to receive contributions from every one who knows anything of interest to the profession. Articles designed for publication in the JOURNAL should be handed in before the first day of the month. The Editors are not responsible for the views or opinions of contributors. All communications should be addressed to the Managing Editor, 284 FRANKLIN ST., BUFFALO, N. Y.

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Original Communications.

THE RELATION OF THE SO-CALLED MINOR GYNECOLOGICAL OPERATIONS TO INTRAPELVIC INFLAMMATION.

By L. S. McMURTRY, M. D., of Louisville, Ky.,

Fellow of the American Association of Obstetricians and Gynecologists.

The diagnosis of intrapelvic diseases, their treatment during the primary or formative stages, and decision of the vital question of surgical interference, constitute a large and important share of the responsible duties of the practitioner of medicine. The advance of American civilization, with the growth of large cities and departure from the simple habits of agricultural life, with an accumulating influx of European pauper population and an increase of vice, have diffused and augmented the prevalence of specific inflammatory diseases of the pelvic organs. The ready infection of the intraperitoneal structures during an unprotected labor or puerperium is so common, that no one can fail to recognize this as a conspicuous cause of intrapelvic inflammatory disease.

There is another factor in the etiology of intrapelvic inflammation which is not so generally recognized, and which is of the highest practical importance. In the light of the advances made in pelvic surgery, it has become evident that a large proportion of the cases of intrapelvic inflammation ending in structural alterations requiring surgical treatment, are the direct results of certain manipulations and modes of treatment in common use to relieve comparatively unimportant affections of the pelvic organs. In this way it often obtains that the physician, in his efforts to relieve some comparatively trivial disorder, inflicts upon the patient a more serious malady. Such treatment, in the majority of instances, is based upon certain fallacies as to the pathology of pelvic diseases, some of which it will be my endeavor in this paper to point out. Surely no subject can deserve, both for improvement in our thera-

1. Read before the Medical Society of the County of Erie, at Buffalo, N.Y., June 14, 1892.

peutic resources and for our own conscientious enlightenment, more careful consideration.

THE PERNICIOUS EFFECTS OF UNNECESSARY EXAMINATIONS.

It is an error to assume that every young woman who complains of pain in the back and headache at the menstrual period is the subject of uterine or ovarian disease. These phenomena are part of the constitutional disturbance incident to this important function, and are more or less violent in accordance with the temperament and habits of the individual, and the systemic condition prevailing at the time. A saline cathartic and warm sitz baths to relieve the pressure of congestion, together with rest in bed, will generally beget speedy relief and put the patient on her feet in comfort. How common it is for such cases to be treated with repeated and increasing doses of opium we all know, thus impeding the secretions, arresting elimination, interfering with digestion, and protracting an indisposition which, with ordinary care, will correct itself in a short time.

But of more serious concern is the assumption that the cause of dysmenorrhea consists in a mechanical impediment to the menstrual flow. I do not wish to be understood as implying that mechanical dysmenorrhea does not occur. On the contrary, obstruction and retention from imperforate hymen and cervical stenosis do obtain, but the proportion of these cases is very limited, and the symptoms so marked and persistent that their significance cannot be overlooked. The routine practice of resorting to an elaborate examination, with speculum and sound, in these cases is unjustifiable. The custom of making examinations of young girls, with the speculum or otherwise, by mere fact of menstrual pain or irregularity, is more than an error; it is a grievous wrong which cannot be condoned or excused. I would not consume time upon this point were it not that cases are so frequently brought to my knowledge wherein these unnecessary examinations and manipulations are resorted to, producing distressing mental depression and humiliation, as well as pernicious physical effects. This practice, so harmful in its results, and based upon principles quite erroneous, is not common with specialists in gynecology, but is more frequently resorted to by amateur gynecologists engaged also in general practice. When it is clearly necessary to explore the pelvic organs in a young unmarried woman, she should be anesthetized for that purpose.

That the uterine sound is not essential for accurate diagnosis ; that it may be the bearer of infection to the receptive endometrium; that it often denudes the mucous membrane, and may readily penetrate the uterine walls and pass into the peritoneal cavity, are facts now generally recognized, and which were first brought specifically to the attention of the profession by Dr. William Warren Potter, the distinguished president of this society.

THE USE OF CAUSTICS AND CHEMICAL SOLUTIONS.

After the numerous papers and discussions in special and general medical societies, widely published, during the past two years, upon the evil effects of caustic agents applied to the mucous surface of the cervix and body of the uterus, one would suppose this practice would be abandoned by progressive physicians. Yet such is not the case. This mode of treatment is in general favor in treating various forms of pelvic disease, and is erroneously called conservative treatment. I could recite here case after case, from my own practice, showing beyond question that mild forms of pelvic inflammation have been converted into serious and acute grades by this treatment, and that disease of the tubes and ovaries dated its activity from the time such treatment was instituted.

Emmet, long ago, pointed out the evils of intrauterine medication, but his teachings have not been heeded by the great body of the profession, though confirmed by many careful observers. It is a common practice, constantly fraught with danger, to apply strong caustic and astringent agents to the endometrium,—such as iodine, nitrate of silver, carbolic acid, etc.,—with the idea of producing some indefinite alterative effect upon the pelvic organs, and thereby relieve certain obscure symptoms.

The vaginal douche is in general use, and, in appropriate application, is of inestimable value in the treatment of pelvic congestion and recent inflammation. It is too frequently advised without regard to the menstrual period (when it should never be used), and without detailed and specific advice as to the manner of its application. When used with too great force, with an old or foul syringe, and with strong chemical solutions, it may readily infect lymphatic channels leading to the peritoneum. The treatment of simple leucorrhea as a substantive disease, with strong chemical solutions, in this way, can readily establish tubal disease and associated pelvic peritonitis. By applying caustic agents to the endometrium, traumatic inflammation is established in the immediate vicinity of peritoneal channels.

DILATATION OF THE CERVIX UTERI.

Forcible dilatation of the cervix is accomplished in a variety of ways, but, in the majority of cases, is unnecessary by any method. This operation is resorted to for dysmenorrhea and for sterility, upon an assumed diagnosis of stenosis of the cervical canal as the cause of one or both of these conditions. I have already endeavored to show in this paper, that the diagnosis in the majority of cases is only an assumption, and not a deduction from positive indications. This operation is performed by sponge and tupelo tents, by graduated hard-rubber bougies, and by powerful steel instruments. In these days of cleanliness in surgery, it would be natural to presume that no one would venture to use upon a surface in close proximity to, and in direct vascular communication with, the peritoneum such an offensive thing as a sponge tent. Yet these tents are favorite instruments for dilating the cervical canal with some practitioners. They are prepared with an odor of carbolic acid, and thereby give a deceptive sense of security and confidence.

Within twenty-four hours after the introduction of these tents the patient's pulse is quickened, the temperature is elevated, and she complains of pain in the back and pelvic region. She suffers an attack of pelvic peritonitis, which gradually subsides in its acute symptoms, but exhibits its sequelæ later in a displaced and fixed uterus, with chronic inflammation of the uterine appendages. This is a familiar observation of gynecologists, and I could cite numerous cases that have come under my own care with advanced tubo-ovarian disease directly traceable to the use of sponge tents. The danger from repeated use of the graduated hard-rubber dilators is a traumatism, which may readily extend itself through communicating channels to the peritoneum.

But the favorite instrument for dilatation is the steel dilator, with its powerful blades, usually used during anesthesia, which wounds extensively the mucous surface of the cervical canal and tears asunder the muscular fibers of the cervix. Wonders have been claimed for this instrument. It has been recommended for many varieties of inflammatory disease of the uterus, and it has been claimed that dilatation by this instrument will cure menstrual disorders and nervous disturbances associated therewith. This operation has been likened unto the operation for divulsion of the sphincter ani muscle for the cure of ulceration of the rectal

mucous membrane and associated reflexes. There is no analogy between the organs or the conditions involved. I have known women of highly-endowed nervous sensibilities, who, from the imperfect development of the uterus and adnexa, resulting from idiosyncrasy and the defective hygiene of boarding-school life, suffer severely at the menstrual periods, treated by forcible dilatation under a mistaken idea that the small cervical canal was the cause of all trouble. Of course, no good could come from such an erroneous conception of the troubles incident to an undeveloped uterus and its adnexa, and much harm results from the traumatism. That dilatation of the cervical canal, by a gentle hand, protected by thorough aseptic methods, may serve a useful purpose as a preparatory step to the removal of pathological growths within the uterine cavity, is apparent ; but for nervous symptoms and dysmenorrhea, and in the treatment of sterility, this operation has no place, and its persistent use is a common and prolific cause of disease of the uterine appendages.

INDISCRIMINATE TRACHELORRAPHY.

One of the greatest advances of modern gynecology was made by Emmet when he demonstrated that the condition so long regarded and treated as ulceration of the cervix uteri was in reality a laceration of that structure which had deviated from the physiological course of repair after labor. The operation known as trachelorraphy, or Emmet's operation, is, in appropriate application, one of the most efficient and conservative known to gynecic surgery ; and yet I know no operation which misapplied has done, and is now doing, so much mischief. It is, indeed, a great improvement in our pathology and practice to recognize these lesions as traumatic, and restore the integrity of the structures involved, instead of tormenting the patient and increasing the inflammatory area by the use of cautery and powerful astringents. Moreover, the cervix is relieved by excision of the cicatricial deposit, so prone to malignancy, and of the contraction so painful in its reflexes.

This operation restores the patient to health, and cures sterility, which is so frequently associated with the deeply-torn and ulcerating cervix. But the operation has been more widely abused than any other operation in gynecology. The rents made during labor by the passing head, which mark every multiparous cervix, and which are within the physiological limit, have been pared and

sewed as a remedy for every variety of pelvic disease and almost every form of nervous disorder. The results have, naturally, been disappointing. But, what is worse, these operations have, in a large proportion of cases, been done in appropriate cases, so far as the lesions themselves were concerned, but where the cervical lesions were complicated by unrecognized intrapelvic inflammation, and where careless operative methods have started an inflammatory process involving the appendages, thus causing a more serious condition of disease than the operation was undertaken to cure. In many instances, by this operation, a physiological laceration, unindurated and healed, is laid open, and suppuration follows with failure of union and an open ulcer; in other cases, a subacute inflammation in the uterine appendages is rekindled into an active process, ending in fixation and, possibly, suppuration.

These results of unskilful and inappropriate application of this very useful operation are very common, and I venture to assert that not a single practitioner here, who sees much of pelvic disease, can but bear testimony to the fact from his own weekly experience. For my own part, the connection between the operation and the lesions of tubes and ovaries is so common that the narrative of symptoms by the patient is almost uniform and characteristic. Thorough asepsis during operations in and near the cervix, and protection from infection afterward, require skilled attention and precautions not readily secured.

THE ROUTINE USE OF THE CURETTE.

One of the so-called minor operations most popular nowadays is the operation of curettement. For the removal of fungous growths from the endometrium it has long been in use. Its efficiency in the treatment of these growths, as well as in removing detritus of all kinds from the interior of the uterus, is well established. But its application has been greatly extended by recent teachings as to the pathology of endometritis. That the endometrium should require, when inflamed, such aggressive treatment as will result in its destruction, I am unable to understand. The indiscriminate use of the curette, followed by local application of powerful chemicals, such as tincture of iodine and pure carbolic acid, for simple catarrhal inflammation, has no scientific basis, and that it is often the cause of severe grades of inflammation of the tubes and ovaries, I have seen abundant clinical evidence to satisfy any one. Simple endometritis is a rare disease, and is usually

associated with active inflammatory changes in the appendages and adjacent peritoneum. To treat the endometrium by curettement and caustics amid such complications, will surely aggravate the intrapelvic disease. In the early stage of endometritis, before the inflammatory process has extended to the appendages, all that treatment can accomplish may be had by thorough cleansing, and this should be done with the utmost care.

It was my purpose to call attention to the pernicious results of electropuncture and aspiration in the treatment of pelvic diseases, but these methods, so frequently condemned, are now becoming generally recognized as dangerous, and scarcely require specific mention.

In conclusion, I beg to submit the following summary of the points presented in this thesis :

1. The etiology of intrapelvic inflammation (salpingitis, ovaritis, and peritonitis,) may be three-fold : (1) puerperal, (2) specific, (3) post-operative (traumatic).

2. Unnecessary and uncleanly examinations, with introduction of the sound, may cause, by traumatism and infection, pelvic inflammation.

3. Forcible dilatation, with steel instruments, sponge tents, and other instruments, may beget intrapelvic inflammatory disease. This operation has a very narrow sphere of utility, and is usually performed upon erroneous pathological data.

4. Operations on the cervix, with associated disease of the appendages, is dangerous. The treatment of lacerations by caustics and astringents is never satisfactory and always dangerous. Trachelorraphy is an operation of high utility, but requires discrimination in application and skill in execution in order to obtain good results. It is often the initial step in tubo-ovarian disease of severe type.

5. Curettement, while of unquestioned value in removing neoplasms and detritus from the endometrium, is abused as a method of treating inflammatory conditions of the pelvic organs. The curette is an instrument capable of causing extensive lesions that may light up an inflammation extending to the appendages and peritoneum, or aggravate a preëxisting inflammation therein.

231 West Chestnut Street.

The Cincinnati Hospital Library has been established, containing 7,363 bound volumes, and 151 current journals. This enterprise is to be commended.

PLAIN TALK ABOUT EARLY DIAGNOSIS AND EARLY OPERATION IN CERTAIN INTRAPELVIC DISEASES OF WOMEN.[1]

By CHARLES A. L. REED, M. D., of Cincinnati, O.

Fellow of the American Association of Obstetricians and Gynecologists.

The chief cause of mortality in abdominal and pelvic surgery may be epitomized in the word "delay." Papers by eminent specialists emphasizing this point, are to be found in almost every journal, while case reports giving pictures but little less than tragic, stand as danger signals upon almost every page of gynecic literature. The question of responsibility, in such instances, is a most serious one. Who is responsible for the delay? The patients themselves are frequently alone to blame. There is a natural timidity, an inborn modesty, about woman which comprises her loveliest charm, but which at once becomes converted into immodesty the moment it is permitted to establish a barrier to her well-being. This immodesty is displayed whenever a woman declines proper investigation of her case in the presence of persistent symptoms pointing to disease within the pelvis. She should remember that it is the business of physicians to investigate such cases, and in the discharge of their duty in this regard, it should be remembered also that they, too, have feelings to sacrifice.

There are cases in which the delay in submitting to an operation is to be attributed to the cowardice of patients who may have submitted to examination, and who may have been properly advised by their attending physicians. It is but natural that any woman should shrink from a surgical operation, at least until she can intelligently appreciate the alternative. If, however, we seek to trace this apprehension of results, we shall find the source to be in a multitude of conditions, some, if not all, of which point to evils within the profession, but evils which, so far as the individual practitioners are concerned, are easily avoidable. There is hardly a woman afflicted with an intrapelvic condition demanding an operation but who has heard of some death following such an operation, and is deterred from availing herself of the resource of surgery purely out of apprehension of a similar result. It is sufficient for her that a woman was ill, was operated upon, and died. She does not go back of this trio of facts. If she were to go back of them, she would find, very probably, that the disastrous result had occurred

1. Read by invitation before the Medical Society of the County of Erie, at Buffalo, June 14, 1892.

from an amateurish exploit in surgery at the hands of some one who had never served an apprenticeship at his calling, or else, after long delay, she had fallen victim to complications which had developed through her long-continued and worse than futile procrastination,—complications which baffle the skill of the most sagacious of surgeons and set at defiance every resource of our art.

Many women are deterred from timely operation by a misapprehension on the part of their medical attendants of the true status of pelvic surgery. It was but recently that a patient came to me with a pelvis full of pus, and when I told her that she must submit at once to an abdominal section for her relief, she informed me that she had no hope of recovery, as her physician had told her that three-fourths of all women operated upon in that way died, and that, in consequence of that statement, she had been deferring operation for nearly three years, during all of which time she had been growing worse. This is one extreme illustration of the ignorance sometimes displayed by members of a profession which is, to my mind, the best informed and most conscientious of all the professions.

What is needed to remedy this evil is to have the actual results of special workers in this field of surgery published and republished, until the general profession begins to comprehend what can be done for the relief of their unfortunate patients. It should be held up that the mortality of abdominal section, in skilled hands, is under three per cent., and that, with all operators, results improve just in proportion as they get their cases early and as their experience increases.

It has finally grown to be a conviction with the profession that only one thing ought to be done with an ovarian tumor, and this conviction is shared by the laity,—indeed all deep professional convictions are at once reflected upon the people. The time was not long since when it was the advice of physicians to their patients having ovarian tumors, "Do not bother the tumor until the tumor bothers you." The primary mortality from ovariotomy, during that period, was, naturally enough, from twenty-five to forty per cent. The profession, with its natural conservatism, was slow to grasp the truth taught by these tragic figures. We are now living, however, in a happier epoch. "Operate for ovarian tumors as soon as they can be detected," is the mandate of surgery which is being echoed by every physician in the land who does his duty by his

patients. What is the result? The mortality from ovariotomy has become practically *nil*. In my own work I did not lose a single case from ovariotomy in the Woman's Surgical Hospital of Cincinnati since its opening, two and a half years ago, until the very last one,—a sadly neglected case of three years' standing, from which I removed over sixty pounds of tumor, solid and fluid, and who died of exhaustion due to a frightful serous flow from a chronically inflamed peritoneum. What is true of my own work in this particular, is true of that of other operators of wider experience. The profession has taken a distinct stand in the question of the removal of ovarian tumors,—a stand which is saving more life than any doctrine aside from that of asepsis, in the whole range of surgery. What the profession has done with regard to ovarian cystomata should be done with regard to all strictly surgical conditions within the pelvis. Early operation should become the shibboleth of the conscientious practitioner.

And now I desire, just here, to interpolate a paragraph for the sole purpose of saving me and those who speak as I have just spoken from misinterpretation and misrepresentation. I ask you to note that I insisted upon examination only in the "presence of persistent symptoms pointing to disease within the pelvis." The word "persistent" used in this connection is a significant one, and implies that conservative measures of treatment have first been tried, unless the subjective phenomena have been such as to place all temporizing beyond reasonable practicability. In the case of virgins, examination should be practised only in the presence of imperative indications. I have been referred to in the journals as one who operates upon everything right away,—and my colleagues (Drs. Price, McMurtry, and Ross,) who are addressing you upon this occasion have been subjected to similar criticisms. Allow me to say that I do not operate upon twenty-five per cent. of the cases that come to me for the especial purposes of operation, and that I never decline to operate upon any case that in my judgment can be best remedied by operation, or that has a remaining chance of recovering from surgical interference. I am sure that my colleagues are equally discriminating in accepting their cases, but when we do accept cases for operation we very much desire that they shall yet be within the operable list. If we are to get these cases when they are yet remediable, if we are to get them when their severer complications have not yet developed, we must look to the general practitioner for coöperation, who is first called for their

relief. And I may go a step further and say that we will get them from him at this desirable stage and in this desirable condition only when due consideration is given to early diagnostic indications.

General practitioners, particularly in the smaller towns and rural districts, labor under certain disadvantages in assuming charge of these cases. Twelve years' experience in rural practice enables me to speak knowingly upon this point. I have already alluded to what is to my mind the chief of these disadvantages, namely, the indisposition of patients to submit to examination. If, however, the patient be not a very ignorant woman, she will generally acquiesce when plainly, intelligently, and firmly but gently told of the serious possibilities arising out of delay, and the utter futility, not to say hazard, of any sort of treatment without a preliminary diagnosis. With the patient's consent to make an examination, care ought to be taken that certain things should not be done. A writer in Mann's System of American Gynecology advises that at every first interview the external genitalia should be subjected to careful inspection, and offers certain alleged reasons why this should be done. There is no more reason why this should be done than why a woman should be ushered into the consultation room with the bust exposed. The procedure is as indelicate as it is unnecessary, and ought never to be practised in the absence of some special indication. No instrument should be used that is not necessary for the detection or treatment of diseased conditions, and should then be selected with reference to ease and painlessness of application. Under this rule, and with our refined armamentarium to choose from, I would no sooner think of making an examination with, for instance, a Fergusson's cylindrical speculum, than with a lamp's flue or a joint of stove pipe. It is this instrument with its tortures that accounts for so many cases never passing beyond their first examination in a course of seriously needed treatment. The sound is today the opprobrium of the gynecic outfit, capable of doing a vast amount of mischief and furnishing no information that cannot be more easily and more accurately acquired through other means, hence, ought not to be employed. I am not now the possessor of such an instrument. It is not necessary for purposes of diagnosis to stand a patient on her head, nor to put her in any of the extraordinary positions so graphically pictured in the books. I cannot imagine anything more repugnant to a refined woman than to come into a strange doctor's

office and be made to assume a series of grotesque and utterly needless postures as if she were a professional all-around athlete.

With these "don'ts" well in mind, let us inquire as to the significance of certain facts, subjective and objective, which should prompt us to a diagnosis. The history of the case is important. Permit me to dismiss this branch of my subject by copying from my note book an entry, which I made only yesterday, and which, to my mind, illustrates in a very forcible way what may always be taken as "significant" facts.

Mrs. G., *æt.* 33, menstruated first at 15, sustained a fall; menstruation ceased for fifteen months, when it recurred with extreme pain. She married at twenty; two years later, after two months' cessation of menstruation, she had "a flooding spell," from which she convalesced slowly. She went to the Adirondacks, and rode eighteen miles in a jolt wagon; stopped on her way out of the mountains and had a Fowler pessary inserted. This had to be removed after she got home, because of intense pain. A few years later, not again conceiving as was her desire, she was treated to a series of sponge tents, which caused intense and diffuse pelvic pains; after four months she had some more sponge tents followed by peritonitis, from which she got out of bed only after nine weeks. Some time later she consulted a gynecologist of national reputation, who inserted some other sort of a pessary which she wore for nearly a year, when it was removed by a very intelligent practitioner, who described to me a deep erosion which it had produced on the posterior wall of the cervix. She then got into the hands of still another practitioner, who sought to relieve her by intrapelvic massage *a la* Brandt. This failing, she passed under the care of yet another practitioner, who employed both galvanism and faradism for her cure. This brought her to my consultation room, worn and haggard by her unsatisfactory and exasperating experience, and by the constant dragging within the pelvis. On careful examination, the only condition that I could clearly make out was a retroversion with adhesion. She complained of pain to the touch upon either side of the uterus, particularly upon the right, but I could find neither ovary.

She enters my hospital tomorrow for a little preliminary treatment, when I shall operate upon her. What shall I find? I have done too much pelvic surgery to venture a prediction. There are some things aside from the displaced uterus that cannot help being there. With the history which she has given she cannot avoid adherent ovaries with more than probable occlusion of the tubes,—a condition which destroys her fecundity and imposes upon her the pain which is rapidly reducing her to the state of confirmed invalidism.

In cases whose history has presented "significant facts" such as have been outlined in the preceding record, what are we to look upon as the indications for early operation? A full discussion of this question would imply the delineation of the early history of every surgical condition occurring within the pelvis. Such a dissertation is not called for in the presence of such an audience as that which now confronts me. Chronic adhesive oöphoritis, acute interstitial salpingitis, acute occlusive salpingitis, chronic hydrops, and follicular ovaritis, are all conditions that cannot be cured short of surgical interference, and yet are conditions that may yield the most negative results on physical exploration even under anesthesia. Their most important symptom is pain,—pain within the pelvis,—generally referred to one side or the other, or to both iliac regions. This pain may find expression in the sacral region also, and later in reflexes down the thighs, up the spine, or in distress suggestive of engorgement of the longitudinal sinus, or in an aggregation of all of these conditions. Pain occurring as a result of any of these pathological states is of the most persistent type, and by constantly nagging the nervous system of the patient, interferes with her physical functions. Digestion is impaired, the bowels become constipated, tympany is persistently present, the bladder is irritable, and the rectum is a constant source of annoyance. With the supply of nutrition cut off through the stomach, with the assimilative functions impaired through intestinal atony, with sleep disturbed if not actually dissipated by constant pain, the trophic centers presently yield, and the patient enters upon a rapid decline. Relief is now sought by anodynes, and in the majority of cases the opium habit is established. With yearnings for maternity which cannot be gratified, with longing for connubial relations which are prohibited by pain, with pathetic prayers for a peace and comfort which are unattainable, these cases go from bad to worse, until the body becomes reduced and, in some instances, the mental and moral faculties become disturbed, if not destroyed.

Let me further illustrate:

A patient, *æt.* 40, came to me a few weeks since. She had had one child fifteen years ago. She had not since been pregnant. During that time she had had pain of a persistent sort in both iliac regions. She was very anxious for children. This desire probably had something to do with the development of a mild nymphomania. She was an excellent woman, and this impulse had kept her in a constant hand-to-hand conflict with herself. She had never transgressed, and came to

my hospital with an earnest desire to escape from the torments of a desire which had been in constant quarrel with her higher sense. She had been in sanitoria in the East and in the West without relief. I examined her most carefully under anesthesia with entirely negative results. The persistence of pain, however, taught me that she had a center of irritation within the pelvis, which center of irritation was, to my mind, the cause of the constant sexual perturbation. With this theory in mind, I advised exploratory incision,—a suggestion which was eagerly accepted. In the presence of her attending physician, Professor D. S. Young, of Cincinnati, I opened the abdomen with the result of finding a double hydrosalpinx, each tube being adherent so high up in the pelvis as to elude the touch from a bimanual examination practised under anesthesia. The patient made a prompt recovery, with the additional fact that she is now in a state of mental tranquility. She no longer yearns for a maternity which she now knows is beyond the possibility of attainment.

I mention this case because it is an additional instance of the happy outcome of an operation undertaken on symptoms alone, without the indications of a physical character such as are in some instances solely relied upon as the criteria for surgical interference. I have gratification in presenting it upon this occasion, because it is but another example of the relief of mental conditions by the removal of peripheral irritation,—a principle of treatment for which I had the honor to contend in this hall more than three years ago, and an example which is receiving ample confirmation at the hands of my distinguished friend, Dr. Geo. H. Rohé, at the Maryland hospital for the insane.

It would be futile for me to attempt to discuss all the conditions which should prompt the medical attendant to advise early operation. Their conditions are amplified in detail in the modern text-books, notably in the recent edition of Pozzi under the editorship of my friend, Dr. Brooks H. Wells, who has honored us with his presence at this meeting. They can be studied as well there as in this paper, the object of which is to discuss in a plain matter of fact way, but quite unsystematically, the importance of studying pelvic diseases early in their history, and in advising operation before irreparable mischief has been done.

Having now, in a very desultory way, called attention to the importance of early examination, early diagnosis and early operation in certain intrapelvic conditions,—having thus, as it were, furnished the motive for interference,—I may be pardoned for speaking somewhat more explicitly as to certain of the methods to

be employed, and of the conditions to be defined. I have already said that I sometimes operate simply upon the history of the case and in the absence of physical indications, and I have given illustrative histories and illustrated results. It is unnecessary to discuss further that phase of the question. But what physical indications should prompt the attending physician to say to his patient that she has disease within the pelvis requiring surgical interference, and by what means will he arrive at his diagnosis? The last part of the question is the first in the logical order.

It is frequently most convenient to examine a patient at her own home, and an ordinary bed is then most generally employed for the purpose. It may be politic to acquiesce for the time being in this arrangement, especially in the cases of timid women who are being examined for the first time, and particularly as a presumptive preliminary diagnosis may be arrived at by this means. A final diagnosis, however, one embracing a careful study of the conditions within the pelvis, should not be attempted until after the patient has been placed upon a firm table in such position that the bimanual method can be satisfactorily practised. For an operator of experience, whose touch is cultured, it is not necessary to place the patient in any other than the recumbent posture with the knees flexed. The Sim's position may, in exceptional cases, be found to be of real value. The knee-chest and other postures sometimes affected have never been necessary in my practice. A speculum need not be employed. It is not infrequently resorted to *pro forma*. In the diagnosis of conditions above the pelvic diaphragm, it has no place. So manifest is this fact that many may wonder why it is given mention in this paper, but this same "many" may not know that there is another "many" by whom the speculum is employed just as if the uterine canal were a telescope, or the pelvic diaphragm were a plate-glass window. Instrumental examination of the uterine cavity is always hazardous, ought not to be employed in any but exceptional cases, and then only under the most scrupulous aseptic precautions.

Many a patient has died while her attending physician has frittered away time in a futile attempt at a differential diagnosis. There recently came into my consultation room a physician whose appearance and position would suggest that he had judgment and sagacity, but who at once dispelled the illusion by stating that he had a patient whom he should send in for operation just so soon as he could tell whether she had a pyosalpinx or a hydrosalpinx!

What difference would it make ? Suppose the probabilities of the case had been broadened, and had included follicular degeneration of the ovaries, chronic occlusive salpingitis, or any other or all of half a dozen other conditions, what difference would it have made? There can be but one line of treatment for them all.

It cannot be expected within the limits of a paper such as this that the physical indications of the various intrapelvic diseases can be outlined. Tumefaction above either fornix with or without fixation, generally means irreparable organic mischief, which, if not already furnishing a nidus for pus, offers, at least, an inviting field for suppuration. When this condition exists in connection with a history of previous miscarriages, dirty accouchments, intrauterine tinkerings, and electrical treatments, but particularly when a distinct history is given of one or more attacks of pelvic peritonitis, which, however, may not have been of a severe type, the conclusion is simply irresistible that the case belongs in the surgical category, and that operation should be advised and practised at the earliest possible moment.

311 Elm Street.

DISCUSSION.

Dr. H. D. Ingraham, of Buffalo : I am sorry that I was unable to hear Dr. Ross's paper upon ectopic gestation, as it is a very interesting subject, one that is of great importance to the general practitioner, at least as far as making the diagnosis is concerned. From the number of cases that I have seen, there can be no doubt that this condition occurs much more frequently than is generally believed by the profession. Although the other papers are much alike, they cover a very extensive field, one too broad to be taken up in the limited time allowed for discussion. I fully believe in operation when any distinct lesion exists that cannot be relieved by less radical measures. I don't believe it right to let women suffer, yet we are all well aware that many of the conditions that were formerly supposed to demand operation can be relieved without it.

I wish to add what emphasis I can to one point mentioned in one of the papers, and that is the necessity of early diagnosis in all diseases peculiar to women, especially that terrible one, uterine cancer. A great many cases of this disease are sent to the hospital with which I am connected, but most of them are so far advanced that nothing can be done for their relief. Delay has destroyed all hope, but had they been seen earlier much suffering could have been avoided and many years added to theirs lives. The same can be said of several other diseases.

I also wish to protest against the frequent and unnecessary use of

the uterine sound. I do not go quite as far as Dr. Reed, because I have a sound and use it occasionally. Yet it is an instrument that does much more harm than good, unless very carefully and sparingly used. Several times during the past Winter I have seen men, who ought to know better, introduce the sound into a retroflexed and adherent uterus, and attempt to replace it, the only effect being to increase the suffering of the patient and prolong her illness. In my lectures I tell the students never to use the sound until they have been in practice three years, and then, if they use it, to be very cautious. If they go without it for that length of time, they will find that it is not very necessary, and will not, I believe, be likely to abuse it. I wish to join with the other members of the society in thanking our visitors for coming here and giving us such a treat.

Dr. Brooks H. Wells, of New York : Judging from the remarks of the previous speakers, one would suppose that nearly every case of salpingitis demanded a laparatomy. Dr. Reed says, however, that he only performs abdominal section on about twenty-five per cent. of his cases. I would like to ask what becomes of the other seventy-five per cent.? That certainly is an important majority that ought not to be entirely overlooked.

No one doubts the necessity for operation in the cases recorded by the previous speakers, who are all expert diagnosticians and surgeons, but others with less experience might be led to think themselves justified in removing appendages in any case where they found tubal enlargement and pain.

In my experience, most cases of catarrhal salpingitis, or hydrosalpinx, can be practically relieved by treatment short of section. Undoubted pus tubes, with peritoneal leakage and recurrent inflammation, should, with our present knowledge, be promptly removed. Yet, even after an undoubted gonorrheal double pyosalpinx, it is possible that a patient can be cured and bear children. My position in this matter is best illustrated by reference to a somewhat exceptional case where I treated the wife of a drummer,—with an acute gonorrhea contracted from her husband, and an acute periuterine inflammation, with great enlargement of the tubes,—first for the acute symptoms, and later, by careful dilatation, scraping and packing of the uterine cavity for the relief of very profuse menstruation. The packing caused no unpleasant symptoms, but was unexpectedly followed by a flow of pus from the uterine cavity, which continued at intervals for some time, and was accompanied by the disappearance of the tubal swelling, to be followed, six months later, by pregnancy. The patient was delivered in January last of a healthy girl, and had a normal convalescence.

Dr. Henry R. Hopkins, of Buffalo : I desire, before all else, to express my earnest appreciation of the papers and discussion. Permit

me, as a general practitioner, to say that I consider the subject most practical, and its treatment in the highest degree edifying.

I regret my inability to add positively to the interest of the occasion, but I thought possibly some good might come from the observations of a general practitioner during, or resulting from, a quarter of a century's experience in cases of intrapelvic inflammatory troubles. But a single observation would I make, and that to the effect that, excepting cases where intrapelvic inflammations result from puerperal or gonorrheal infection, or from the equally mischievous and much more frequent meddlesome amateur gynecologist, Nature, in the majority of cases, is competent to bring the inflammatory process to a favorable termination without serious impairment in a permanent degree of either local function or health, provided the general health of the individual can be maintained at a fair standard. This observation, it seems to me, is fully supported by my experience.

Dr. H. E. Hayd, of Buffalo: Papers like Dr. Ross's only men of Dr. Price's, Dr. McMurtry's, and Dr. Reed's experience can thoroughly discuss, but these last three papers come within the province of us all. First of all, I want to thank our distinguished guests for the interesting papers they have given us this afternoon, and to assure them that they couldn't have chosen subjects which would have interested, instructed, and entertained so many of us as these papers have. Dr. Price, in his usual and characteristic manner, reviews the recently accepted ideas of uterine pathology, backed up by his personal observations and unusually brilliant experience. He has shown us that the old pelvic cellulitis, the broad ligament phlegmon, the para- and perimetritis are but manifestations of the same inflammatory process which has extended by contiguity from the uterine mucous membrane to the tube and its adjacent structures. He has pointed out a very important clinical fact, namely, to relieve endometrial troubles as quickly as may be, and by means as unirritating as possible.

His paper has been well complemented by Dr. McMurtry's, who has shown us the causal relationship between minor gynecological operations and severe uterine disease. He has brought to our minds personal experiences—perhaps not recent—of severe inflammations following the careless and indiscriminate use of the uterine sound in elevating a retroflexed organ, or the unnecessary measuring of the length of the uterus. No two papers could have done this society more good, and I congratulate our visiting doctors for coming among us in this missionary service, because every day those of us who see much uterine disease are struck with the boldness and the ignorance of men who use sounds, probes, and other appliances in the uterine cavity without the remotest idea of their danger. Admitting, therefore, the possibilities of great danger in their manifestations, there is still another side to

this question, and that is the assurance of great benefit from properly directed intrauterine treatment in suitably selected cases, as was brought out by Dr. Wells. We come to Dr. Price and to Dr. McMurtry, and to Emmet, if he were present with us,—since he, above all others, deprecates the practice of invading the sacred precincts of the uterus for a supposed endometritis — and we tell them that rest, sexual abstinence, the elevated bedstead, the knee-elbow position, hot water injections, and glycerine tampons do not cure – although they help—the profuse discharges and the recurrent hemorrhages, the backaches and stomach reflexes, which so many of our women complain of, due to subinvolution, endometritis, metritis, and their associated salpingites ; and we bring to them positive proofs and personal experiences of cures with the judicious intrauterine use of tincture of iodine, tincture of iodine and carbolic acid, and galvanism ; and in more severe cases, forcible dilatation, currettement and drainage by iodoform gauze, as practised and recommended by Polk, of New York. Of course, we don't presume that cases such as are shown by Dr. Price of big sausage-shaped tumors and ovarian abscesses are relieved by these means, as nothing short of an operation could be indicated in such conditions, but we do maintain that this advanced state of inflammation and disorganization might have been prevented by the timely and judicious employment of these minor gynecological procedures. We wish to join with them in keeping up this cry of unnecessary uterine tinkering, and over-treatment of women who are apt to ascribe all their diseases to a tipped womb, when we know there are other organs capable of producing distressing symptoms than merely the uterus and its appendages.

Dr. Joseph Price, of Philadelphia : The thought suggests itself that a good motto for our office walls and those of the assembly rooms of our conventions, would be the kindly, thoughtful utterance of the good Quaker lady : " I shall pass through this world but once. Any good thing, therefore, that I can do, or any kindness that I can show any human being, let me do it now. Let me not defer it or neglect it, for I shall not pass this way again." We will make use of the opportunities of today, for we may not pass this way again.

The classical productions of Burnutz and Goupil, followed by the masterly teaching of Mr. Tait, in the line of pathological and anatomical research, have served as a great stimulus to the student who is eager in the pursuit of knowledge. Their arguments have the merit of almost mathematical accuracy and directness, and are reinforced on all sides by post-mortem examinations, together with careful notes of clinical histories. Within the last decade, more than ever before, the ranks of the profession have contained many men who have entered the field of research, eager and anxious and willing to toil in mining out the best treasure of scientific truth. Much valuable teaching, from

a clinical and scientific standpoint, has been and is being done. The practical lessons being learned at our operating tables will lead to the revising of much of our old literature, and the teaching of a better and more prompt surgery. The earnest, truth-seeking, hard-working men of the profession have learned, through the open avenues of surgical observation and experience, that there has been much erroneous and dangerous teaching in regard to a great variety of pelvic troubles. Now, with almost perfect opportunities of obtaining exact knowledge of the natural history of pelvic maladies, of the angry forms of tubal and ovarian disease, there exists no rational excuse for much of the ignorance existing and put in practice by men who would assume the office of teachers. We assume to lay down in no line of our work absolute directions. None of us "know it all," and it will be a long time before we do. Our advancing steps will be greatly facilitated by a close watchfulness for our own and others' errors, and by the tenacious holding on to that only which has the strong support of happy results.

In the light of our present clinical knowledge, acquired by large experience in the pelvis, we are driven to the conclusion that the entire subject of pelvic peritonitis and cellulitis will have to be rewritten. Sharp distinctions between pelvic cellulitis and peritonitis are refinements of diagnosis that we no longer seek. Our old literature is crowded full of grave discussions of pelvic troubles, under such captions as peritonitis, parametritis, pelvic abscess, and the like, with lengthy disquisitions as to pathological changes, very *lucid* scientific explanations of the causes of the conditions, and the varieties of the treatment indicated in each.

To *blot out old useless traditions, to efface old errors and bad teaching* from many of our books, would leave very little book and less author, for, with but a few heroic exceptions, the author holds on to his old teaching of errors, and passes out of a living progressive world. That eminent author and scientist, Prof. Simpson, of Edinburgh, forcibly implied his opinion of much of what has been written when asked by the college librarian how he should rearrange the college library, he replied: "Put all the books over ten years old down in the cellar." This is taking hold of an important matter at the right end. Such a course with our own college and private libraries would have a chilling if not maddening effect upon the very refined sensibilities of some of our modern American authors. They would take it as *personal*, and as exhibiting the incendiary spirit of ignorance. But even in this line we would not be conservative. "The man who knows it all" is the man who makes no advances, who never labors to find new truths and better ways, who does not zealously seek all through his own experience for his own errors and profit by the lessons they teach, who never studies for his own and general professional success the lessons of the

errors and victories of the students and toilers of the profession. He is one who wears his January moss through the hot June days, and takes it to be profanity to his sacred person if you breathe on it. There is nothing men who would learn welcome so much as criticism. The great giant master-mind and hand in abdominal surgery, Tait, comes to the fore again and again to tell us of his errors and how and wherein he corrected them. The men who have written the best are the men who, from their larger experience, are revising or making new editions, with very little of their old books in them. And they are not wasting time and energy in apologies. The man of the period we would have talk to us, is the man who comes to us with his apron on and with clean hands. He need not be precisely a Lord Chesterfield in his manners. The spider may have reached the perfection of his art in the weaving of his first web, but it has not been given to us to know all or attain perfection with so much facility and ease.

Perimetritis has been defined for us as "an inflammation of the peritoneal covering of the uterus and its appendages," a comparatively rare condition, frequently fatal. Parametritis, as "an inflammation of the cellular tissue of the broad ligament," a common condition, often ending in abscess, and rarely fatal; while "pelvic abscess means pus in the pelvis." Such are the ideas and teachings of the old, surgically orthodox school.

We believe them to be essentially salpingites, inflammation of the tubes and ovaries being the primary cause of these troubles. That peritonitis is commonly the result of tubal and ovarian disease, is one of the plain lessons of the operating table,—a conclusion of the best surgical experience.

The condition known as parametritis may possibly occur, and does occur, but secondarily to advanced tubal disease.

Inflammation of the cellular tissue and formation of pus can occur anywhere in the body where there is cellular tissue, from the scalp to sole of the foot. But we never see it in the pelvis independent of tubal trouble. If it ever does so occur, it must be the result of traumatism, and cannot fail to involve surrounding structures,—suppurating ovarian, or dermoid cyst, or salpingitis, caused by gonorrhea, parturition, injury to small tumors, dirty instruments, electricity, etc. We have seen pus discharging from the rectum, from the bladder, from the umbilicus, and from the vagina. We see psoas abscess, perforating appendicitis, idiopathic peritonitis, and typhoid fever, and find the origin of the trouble in the suppurating tubes and ovaries. Pus in the pelvis is very rarely a simple single abscess, and this fact has most important bearing in the treatment. From the anatomical relations of the organs, the complexity is easily understood. Peritoneal inflammations and adhesions are always present. The tubes are commonly strictured and full of multiple pus pockets, separate from each other

and from other collections of pus, as pus pockets in the ovary or in the cellular tissue. The condition very frequently occurs on both sides of the uterus at the same time. There may be double pyosalpinx and double ovarian abscess contained in a pus pocket in the peritoneal cavity composed of adherent intestinal inflammatory tissue, four abscess cavities contained within a fifth. But I must give way to others who will continue the discussion.

Dr. Chas. A. L. Reed, of Cincinnati: It is difficult to discuss two such papers as those read respectively by Drs. Price and McMurtry, for they have left but little to be said upon the topics of which they treat. There is, however, one point in Dr. Price's paper which I wish not to discuss, but to emphasize, and that is that purulent accumulations within the pelvis and outside of the uterine appendages do occur, but as far as observation has gone, only as post-puerperal complications. This is precisely the position that I assumed before the American Association of Obstetricians and Gynecologists at New York a year ago. I then alluded to several cases in which I made median exploratory incisions, and had found the appendages, upon close and careful inspection, entirely free from disease, but large purulent deposits in the deep structures upon one, not both sides of the uterus, which deposits I evacuated by incision along Poupart's ligament. I have had three cases since that time. In every instance the accumulation was consequent upon and, logically, caused by puerperal infection. I recall that in several instances there existed yet uncicatrized lacerations of the cervix. This sort of traumatism opens the lymph channels to an infection which results in a circumscribed accumulation of pus in the deep tissues of the pelvis, but, so far as my limited experience goes, always upon one side of the uterus. Of course, it is but logical to infer that if this condition can and does result from a traumatism incident to labor, it may result from any other deep injury to the uterine tissues. My only reply to this is that any conception of pathology, or of pathological states arrived at deductively rather than by observation, is unreliable, and that my experience and my research, the latter giving discriminating weight to the respective authorities, confines this condition to just where Dr. Price has placed it, viz., in the category of post-puerperal complications.

I have been interested in the remarks of Dr. Crego, who has given the views of the neurologists upon the question of genital reflexes. I believe he has very accurately stated the case from that standpoint. And I feel the more interest in what he has said because, about three years ago, in this very hall, I had occasion to discuss that question at some length. I then assumed the position that mental and nervous diseases do sometimes occur as the result of intrapelvic disease in women, and that the removal of the intrapelvic disease resulted in the

cure of the mental and nervous complications. I made that observation based upon some experience, which has since grown more extensive, and which has only confirmed the convictions I expressed at the time referred to. My quarrel, friendly of course, with the alienists and the asylum men is that they deny the lesson taught by this observation, and that they do think just as Dr. Crego has represented. Happily, however, the proof of the correctness of my position is coming, and coming rapidly. A gynecologist has at last been appointed the medical officer of a hospital for the insane. He has dispelled several illusions which have been imposed upon the profession and the community by the old and, unfortunately, yet existing *régimé*. In the first place, he has found that these patients can be examined without injury to themselves; in the next, that disease of the intrapelvic organs can be as readily diagnosticated in their cases as in others; that they can be operated upon as readily and with as good results as sane patients; and, finally, that after primary recovery from abdominal section, a very encouraging proportion of them recover mentally; and, still lastly, that among the most happy mental recoveries are cases that have been incarcerated for years and labeled as incurable. I invite the attention of this society and of the profession to the magnificent work being done in this direction by my distinguished friend, Dr. George H. Rohé, of the Maryland Hospital for the Insane. When asylums become organized as hospitals, with staffs of specialists in the various departments in attendance, we shall realize the maximum of recoveries in these institutions.

[Note by the Editor.—Every exertion was made to obtain the remarks of Dr. Crego, referred to in Dr. Reed's discussion, but without avail.]

Dr. McMurtry: Closing the discussion. It is not my intention by my paper to convey an idea that the minor gynecological operations are to be abandoned. On the contrary, I would advocate elevating the standard and improving the methods, and thereby the results of these valuable surgical procedures. But I would direct attention to the fact that when misapplied, or performed without observing a thoroughly surgical technique, these procedures, even though generally considered simple, innocent, and conservative, are capable of inflicting serious mischief upon the patient by establishing intrapelvic inflammation, or aggravating such a process already in existence. My plea is for more careful discrimination in diagnosis, more accurate ideas as to pathology, and the observance of established surgical methods when these operations are performed in appropriate cases.

The fact is established by careful clinical observations, confirmed at the operating table, that extreme degrees of tubo-ovarian disease may result from the misapplication of these apparently simple methods of treatment. Having learned this, it should be the aim of every practi-

tioner to exercise greater care in diagnosis and more thorough discrimination in resorting to minor operations and local treatment; and, at the same time, to cultivate the same rigid observance of operative technique as in major operations involving the peritoneum. In the treatment of minor ailments, and in doubtful conditions, we should withhold our hand rather than expose the patient to greater danger by resorting to operations which have a strictly limited field of application.

THE PRESENT STATUS OF WOUND TREATMENT.

By F. J. THORNBURY, M. D., Buffalo, N. Y.,
Demonstrator of Bacteriology in the Medical and Dental Departments of the University of Buffalo.

The chief and most valuable lesson which the surgeon, educated now in the von Bergmann Clinic, has to learn, is the wide range of contrast existing between the present method of dealing with wounds and the manner formerly in vogue, comprising elaborate sponging and irrigation, both during the operation and at each subsequent change of dressing.

No other advance of modern surgery is more important than that which characterizes the evolution of antisepsis into asepsis, and the subsequent discontinuance of irrigation.

To Landerer belongs the credit of having first, in 1889, pointed out the superior advantages of the dry treatment of wounds. A trial of the method was at once begun in a few cases in the von Bergmann Clinic, and in a short time it found universal application by reason of the superiority in the method which became manifest. But for some time previous in the clinic, wounds had not been treated in the manner practised by most surgeons, who still inject into the wound chemical solutions under high pressure from an elevated reservoir connected by a rubber hose. On the contrary, the wounds were irrigated but slightly, and only with pure, sterilized water supplied through a small hand-irrigator.

The forcible irrigation of suppurating wounds does not simply wash away the purulent secretion, but, on the contrary, may tend to force the infectious material into the wound and rather disseminate than limit the infection.

When we look back to review the advent of antisepsis, we must conclude that it never had a thoroughly reliable basis, either experimental or as the result of surgical experience, but instead, the teaching was founded chiefly upon hypotheses and things taken for granted. The supposed necessity for irrigating wounds was accepted

in a manner similar to that which characterized the popularity enjoyed by the spray for a short time.

The belief that a wound can be "disinfected" by means of antiseptic irrigation with the indications laid down for their application, have, like many other things, been inaugurated chiefly through custom, and transmitted from one clinician to another; thus finding a fixed place without due authenticity and reliability. Furthermore, the too slight consideration of the degrees of tolerability possessed by wounds, and, on the other hand, the actual disinfecting properties of antiseptic solutions, led of necessity very early to scepticism regarding the irrigation, *i. e.*, as to whether it really could accomplish all that was claimed for it, and all that it should.

Under no other circumstances are the conditions for the working of an antiseptic so unfavorable as by the method of irrigation as usually practised. Among the requirements of chemical disinfection are, first, the capability of permeating every infectious particle; second, the prevention of changes in the wound secretion, and finally, the assurance that these effects will be lasting. But the antiseptic fails to accomplish these requirements, because in fresh infected, and still more in old contaminated wounds, the septic germs — cocci and bacilli — are already enveloped in the blood clots and imbedded in the tissue particles and dried secretion or crusts, if they have not already invaded the interstitial connective tissue.

The ordinary antiseptics, especially sublimate and carbolic acid, have not the capability in diluted solutions of permeating these substances to come in contact with contained organisms.

The richly albuminous wound secretion enters into combination with the antiseptic during the irrigation, thereby reducing to a marked extent the effect of the agent, or destroying its action altogether.

Further, the short continuance of the application of the weak solutions would, of itself, preclude the probability of the resistant organisms being destroyed. In the one instance, therefore, we cannot be absolutely certain whether a disinfection of the wound is to be accomplished by means of the antiseptics. While, on the other hand, we can calculate with reasonable certainty on a greater or less amount of damage resulting. The latter pertains especially to the toxic and irritating properties of most of the solutions.

We must admit that the tissues themselves at the seat of application suffer more or less under the action of chemicals, and that the tissue cells are seriously damaged long before the much more resisting bacteria are destroyed. We are presented with evidence of this, practically, each time a fresh wound is irrigated with strong carbolic acid solution. The surface no longer appears bright and red, but assumes, rather, a pale whitish appearance, and becomes covered with small grayish, superficially located, corroded points.

Furthermore, the antiseptics cause especially active secretion, and interfere materially with the healing process. Frequently, as is well known, a general intoxication results, often of the severest form.

The one effect which the irrigation does possess is the removal of blood and purulent secretions, and the providing of an influence which limits the development of organisms in the wound, even though the solution used may not destroy the individual bacteria. But with reference to removal of blood or secretion, sponging away of the discharge with some absorbing material, such as hydrophile gauze, accomplishes the purpose better than the irrigation with even now irritating fluids as a physiological ($\frac{3}{4}$ per cent.) salt solution.

This method of drying the wounds with absorbing gauze finds application in the von Bergmann Clinic in all operations, and at the subsequent change of dressings, no irrigation being used. Only very exceptionally—in case of especially profuse discharge—is one of the foregoing solutions employed. Influences which limit the development of bacteria, or modify their ptomaïne action,— the so much favored sublimate, carbolic acid and other antiseptic solutions,—after all, as experience has shown, present the widest ranges of variation as to their efficacy.

A wound which is covered with green pus cannot be rendered absolutely free from liability to further development of the bacillus pyocyanins by the mere application of an antiseptic solution, excepting possibly by a very long continuance of the irrigation.

For limiting the development of bacteria and rendering the microbes inert, iodoform has long been substituted. In fresh wounds, especially, does it find preference of application. It is deodorizable with vanileine, is a mild agent, non-irritating and at the same time thoroughly antiseptic and capable of preventing the development of septic changes in the wound secretion.

Therefore, notwithstanding the repeated attacks which have been made upon this drug at various times, it still maintains its place at the head of the list of agents to be preferred in wound treatment.

But, in conclusion, we do not lay much stress upon antiseptics in general; little demand will be had for them if the rules of asepsis are properly observed.

610 Main Street.

Clinical Report.

OVARIAN TUMOR OF UNUSUAL SIZE—SUCCESSFUL REMOVAL.

By CHARLES H. RICHMOND, M. D., Livonia, N. Y.

I do not often report operations, but this case, while not unique, is unusual in these times, and presents an opportunity for the study of the differential signs in such cases.

The case was that of Mrs. B., of Groveland, N. Y., a woman 54 years old, tall and naturally large, but now emaciated. Has two grown-up children. She measured five feet three inches in circumference at the umbilicus, the enlargement being prominent and pendulous. The ribs were distended, fluctuation was marked over every part of the abdomen, flatness on percussion was observed all over in all positions, the finger in the vagina felt no pouching downward, but could, by a quick movement, communicate a vibration to the hand over the abdominal walls, the uterus was apparently normal in size and movable, and there was no hardening of the pelvic roof. Her feet were somewhat swollen, one limb, which had once been the seat of "milk leg," being considerably enlarged and presenting a small-sized ulcer. Her bowels were habitually constipated. Her countenance did not show marked organic disease likely to produce ascites, nor was the ovarian countenance well marked.

The only history that could be obtained was that enlargement of the abdomen was first noticed nearly seven years previous to my examination, and that she was tapped about five years previous, about twenty pounds of a light straw-colored serum, so far as recollected, having been removed. When the abdomen refilled, the fulness seemed to be even, no bunch being noticed.

I had never seen a case of fluid accumulation of any sort which approached this in size. Chronic peritonitis was excluded by

mobility of the uterus and the absence of hardening of the pelvic roof, so that the diagnosis rested between the ovarian cyst and ascites. The spreading of the lower ribs, together with prominence of the belly, without much flattening while the patient was lying on the back, seemed to favor the existence of tumor. It seemed also that if the fluid were free in the abdominal cavity, that quantity would cause bulging into the pelvis. She had been treated for ascites, but always by irregular practitioners.

I advised an exploratory operation with a view to ovariotomy if a tumor were found, because it seemed more probable that a cyst existed, and a diagnosis would most likely be as difficult with the fluid withdrawn, especially if there was much adhesion. Moreover, the delay of a radical operation incident to the tapping might prove disastrous at that stage of the growth, provided it proved to be cystic. Accordingly, on June 3, 1892, assisted by Dr. Nellie V. Chappell, of Buffalo, (then of South Lima,) Dr. McGowan, of Conesus Center, and Dr. Jones, of Scottsburgh, I proceeded to operate after the usual antiseptic preparations. The exploratory incision was about two inches in length. The diagnosis of cyst was soon made, when the incision was lengthened about an inch, the cyst tapped and removed in the usual way. The cyst wall was extensively adhered to the omentum and parietes, so that a portion of the former was cut away, and separation from the abdominal wall, in a considerable portion, could only be accomplished by dissecting off the fibrous coat with the knife. Several daughter cysts were formed, each containing a different kind of fluid. In one the fluid seemed very oily. That contained in the large cyst was light colored, much resembling the fluid of ascites. The entire operation occupied about two hours, on account of the time taken to draw away the fluid and to separate the adhesions. The weight of the cysts and contents was fully eighty pounds.

The cavity left was appalling, for I feared that all the air could not be excluded from beneath the diaphragm, and that septicemia might result from the extensive raw surfaces. The patient took the anesthetic (chloroform, followed by ether,) well, and sustained no apparent shock. She was left in charge of Dr. Jones. The temperature never went above or 101½°. It was ordinarily below 100°. She took no opiates during the first few days. The stitches were removed after eight days without suppuration. Persistent vomiting took place after thirty-six hours, which was attributed to errors in diet on account of misunderstanding. This was followed

by a severe diarrhea, a source of much trouble for two or three weeks. Small mural abscesses developed in the wound, so that complete union was delayed, making it just seven weeks before the patient was on her feet, although she was substantially well before that time. The puckered condition of the abdominal walls and the sunken aspect of the wound made it more liable to become infected by foreign matter. The scar is about one and a half inches in length. The peritoneum seems well united.

Selection.

ON THE DIGESTIVE FERMENT OF THE CARICA PAPAYA IN GASTRO-INTESTINAL DISORDERS.

By FRANK WOODBURY, A. M., M. D.,
Professor of Clinical Medicine in the Medico-Chirurgical College at Philadelphia, etc.

During the past year, having devoted considerable attention to the clinical applications of papoid (papain Finckler), especially in digestive disorders, I have had the satisfaction of witnessing a number of very interesting results, to which I wish briefly to direct attention. The successful application of physiological data must be my excuse for again directing attention to a remedy which has been studied by such eminent investigators as Wurtz and Bouchut, Finckler, Rossbach, Roy, and Wittmack, and one, furthermore, the physiological and therapeutical actions of which, at the present day, may be regarded as pretty fully established. If I have little of novelty to offer as regards the agent employed, I may at least point out very briefly some of its clinical uses and the conditions of its successful employment. If I accomplish this modest task, the labor will not be in vain, since success in therapeutics depends upon pharmaceutical preparation and mode of administration, in many instances, as much as it does upon the selection of the proper remedy.

There were two considerations that especially led me to study the clinical applications of the juice of the papaw to disorders of digestion. The first was the relatively large number, both in private practice and clinical service, of patients otherwise enjoying good health, but complaining of digestive disorders. The second was the following statement of Lauder Brunton's, which I encountered some years ago :

"In the West Indies, a tough beefsteak is rendered tender by rubbing it with the juice of a fresh papaw fruit, which contains a ferment, papain, having an action very much like the trypsin of the pancreas."[1]

The line of argument that would naturally be followed by the mind after receiving such a statement would be this: "A tender beefsteak is more easily masticated and digested than a tough one; consequently, an agent possessing the power of making this change must be of considerable value as an aid to digestion when weakened from any cause." Before considering the therapeutics of this unique remedy, however, I may briefly summarize its physiological actions and other properties.

For more than a century it has been known that the milky juice of the papaw has the power of softening meat, and it is still in general use for this purpose by the natives in the West Indies and some districts of South America. Indeed, it is stated that at Quito, where, on account of the elevation, water boils at too low a temperature to cook the meat tender, the juice of the papaw is a culinary necessity. The South America melon-tree, papaw, or *Carica papaya*, is indigenous to the tropical portion of this continent, but is easily cultivated in other warm countries and in hot-houses. It bears a large melon-shaped fruit, turning yellow when ripe, containing a great many seeds, the pulp having a not disagreeable taste, except that, according to Rossbach, it slightly suggests the odor of turpentine. The trunk of the tree, the leaves, and the fruit, all contain a large quantity of a milky juice, which rapidly undergoes a fermentive process and separates into two equal portions, a fluid and a semi-solid. The latter, which, when dried, is soluble with difficulty, received the name of "papayotin" from Peckolt, of Rio Janeiro. By the addition of sugar or glycerin and a few drops of peppermint oil, the fermentation may be prevented and the juice retain its active properties for some time. If alcohol be added to to this milky juice, the digestive ferment will be precipitated, and to this the name of "papain" was given by Wurtz and Bouchut, who, in 1879, made the first thorough investigation of this agent. Analyses made by Wurtz, however, showed remarkable discrepancies in chemical composition and physical properties. Rossbach subsequently suggested that this variation might be due to the presence of peptones, which he succeeded in separating by dialysation.

1. On Disorders of Digestion, their Consequences and Treatment. Lettsomian Lectures. By T. Lauder Brunton. London, 1886, p. 54.

He found the pure papain approximating the general constitution of albuminoid bodies in its composition, as, in addition to carbon, hydrogen, and nitrogen, it contains about 2.61 per cent. of sulphur. Its solutions, however, do not coagulate on boiling, but are liable in a few days, if left undisturbed, like other albuminous solutions, to become foul with vibrios and bacteria. From a clinical and therapeutic standpoint, the following chemical reactions possess some interest:

Hydrochloric acid, added to a solution of papain, causes a heavy precipitate, which, however, is soluble in an excess of acid. The same result is seen from the addition of nitric acid or metaphosphoric acid, but not from ordinary phosphoric acid or acetic acid. Corrosive sublimate does not cause any precipitate, or at the most a slight cloudiness, which afterward becomes more pronounced; on the contrary, if heat be applied, a heavy flocculent precipitate takes place.—(Rossbach.)

Professor Finckler, of Bonn, devised a process of purification of papain which yields a superior product, and free from albuminates and peptones to a degree not hitherto attained. This papain Finckler, or "papoid," as in this country it is known commercially, is a fine cream-white powder, almost devoid of odor and taste, freely soluble in both water and glycerin, and claimed to be of uniform digestive activity. If it should be introduced into our national pharmacopeia, analogy would require a change of termination, and probably "caricinum" or "caricin" would be the more acceptable designation for the pure product than either papoid or papain, which is liable to be confounded with other preparations from the juice, which are of much less digestive power and contain a variable proportion of peptones and other impurities.

The physiological actions of papoid as a digestive agent have been thoroughly established. It acts upon albuminoids, hydrating them and converting them ultimately into peptones, as fully demonstrated by George Herschell.[1] It converts starch with great promptness, the ultimate product being maltose. It emulsifies fats. Moreover, Herschell declares that it has a direct tonic action upon the stomach, stimulating the secretion of gastric juice or pepsinogen. Papoid, according to the same authority, is distinctly antiseptic in its action, and prevents abnormal fermentive processes from taking place in the stomach and intestines. An important point is, that it can be given in conjunction with true antiseptics,

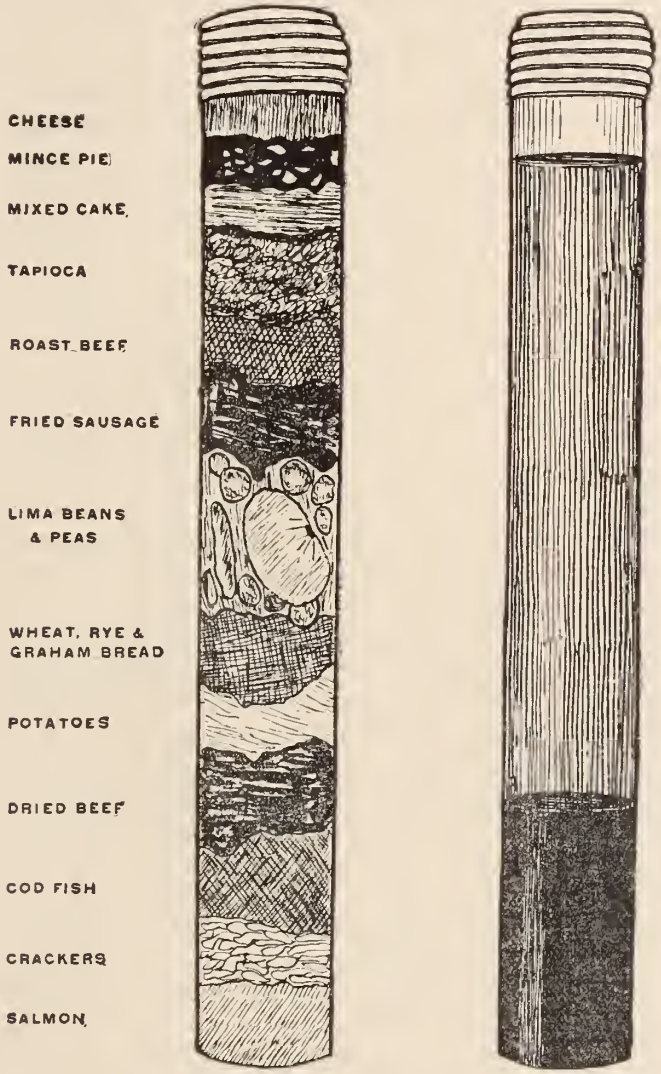
1. Indigestion: A manual of the Diagnosis and Modern Treatment of the Different Varieties of Dyspepsia. By George Herschell, M. D., London. Page 140, London, 1892.

such as salol, when necessary, without its digestive action being checked; even corrosive sublimate in dilute solutions does not interfere with its digestive powers. It acts at all temperatures, but attains its maximum activity at a temperature of 130° F. In several important points it differs from pepsin. Papoid acts best in alkaline solution, but also can work in fluids with an acid or neutral reaction; pepsin requires an acid solution. Papoid is freely soluble and is most active when in concentrated form; pepsin requires free dilution. Herschell also points out the greater digestive power possessed by papain Finckler than either pepsin or pancreatin, and states that "it can be used when pepsin is contra-indicated or powerless." Finally, it should be stated that papoid has no action upon living tissues, and is positively innocuous when swallowed in any quantity that is likely to be administered.

Therapeutically, confining these remarks strictly to digestive disorders, papoid is useful when digestion has been overtaxed, or when the secretion of gastric juice is absent or deficient. Experiments of my own and others, made with the kind assistance of Mr. F. B. Kilmer, in Messrs. Johnson & Johnson's laboratory, at Newark, have satisfied my mind of the remarkable digestive activity of papoid. For instance, in one of the experiments referred to, portions of the constituents of a hearty dinner of bread, meat, potatoes, peas, mince-pie, and other substantials were placed in a large test-tube and treated with papoid and bicarbonate of sodium and a small amount of water. The result was very satisfactory indeed; the meat rapidly softened and the other ingredients gradually disintegrated, forming a pultaceous mass, which finally separated into a grumous sediment and an overlying albuminous, dark-colored liquid. [The artist has endeavored to celebrate this victory of papoid in the accompanying illustration, (see Fig., p. 101,) the only criticism upon which that can be offered is that it is, if anything, rather too graphic.]

Since papoid acts in alkaline solutions even better than in acid media, it is evident that it is specially useful where there is *indigestion due to deficient secretion of gastric juice* or of hydrochloric acid (achlorhydria). In such cases, the administration of an alkaline solution of papoid favors gastric digestion both directly and indirectly; first, by digesting albuminates and softening masses of food, and, secondly, by the action of the papoid in stimulating the secretion of the pepsin glands, while the alkali induces the secretion of a more acid gastric juice. Moreover, it retards the fermen-

tation of the undigested masses of food in the stomach and prepares them for intestinal digestion. In fact, in such cases, a compressed pill of papoid, bicarbonate of sodium, and extract of nux



vomica has given me excellent results. In the contrary case, *where there is an excess of hydrochloric acid*, and where the stomach contents poured into the duodenum are so acid that they prevent the action of the trypsin, papoid prevents duodenal indigestion by

taking the place of the pancreatic ferment. As Herschell points out, it is obviously of no use to give pancreatin by the mouth, as it is at once destroyed by the acid of the stomach, and it is practically impossible to administer sufficient alkali to neutralize the excess of acid, and it would, moreover, be unwise, because it would stimulate still further the secretion of the acid. Papoid is of the greatest use here, because its activity is not materially affected by contact with acid.

In *gastralgia*, which often accompanies the condition just named, papoid, with bicarbonate of sodium, gives immediate relief. On account of its well-marked sedative action, it is also useful in *irritable stomach, nausea, and vomiting*. In seasickness I have not had an opportunity as yet of using it, but I would anticipate decided relief from its administration. In *gastric catarrh* and the *catarrhal condition of the intestinal tract*, popularly known as *biliousness*, papoid administered in hot water fifteen minutes before meals, or upon rising in the morning, cleanses off the mucus and places the mucous coat of the digestive organs in a good condition for secretion. *Constipation*, especially in children, is often caused by imperfect digestion. In infants, for instance, the fecal masses consist largely of casein. Here a digestive agent is the rational remedy to administer, and, in fact, I have used papoid with good results in just such cases, even in very young infants. On account of its sedative action, it is very efficient for the relief of *colic* in infants, as well as *persistent vomiting*. Its antiseptic action and its ability to digest in the presence of antiseptic agents makes it useful in the treatment of *irritative diarrhea* in young children, to whom it may be given in combination with salol, or salicylate of bismuth. In *apepsia* of young children, or in that form of deficiency of the gastric juice in adults, due to *atrophy of the gastric follicles* as the result of chronic catarrhal processes, the glycerin solution of papoid (1 to 20) is especially effective. It is permanent and retains its activity for a long time, whereas watery solutions should be freshly made or they will not keep their digestive power. (This may possibly be explainable on the ground that, in the presence of water, papain, being an albuminoid body, partly undergoes hydration and digests itself.) Furthermore, as already stated, watery solutions of papoid, like other albuminous fluids, are apt to become attacked by bacteria and undergo decomposition after standing for several days.

The uses of papoid, in treating disorders of the digestive organs, may be summarized somewhat as follows :[1]

1. This table agrees in the main with that of Herschell, *loc. cit.*

1. In actual or relative deficiency of the gastric juice, or its constituents.

(*a*) Diminished secretion of gastric juice as a whole; apepsia; anemia and deficient blood supply; wasting diseases.

(*b*) Diminished proportion of pepsin; atonic dyspepsia; atrophy of gastric tubules.

(*c*) Diminution of hydrochloric acid; achlorhydria; carcinoma.

(*d*) Relative deficiency of gastric juice; overfeeding.

2. In gastric catarrh.

(*a*) Where there is tenacious mucus to be removed, thus enabling the food to come in contact with the mucous membrane.

(*b*) Where there is impaired digestion.

3. In excessive secretion of acid.

To prevent duodenal dyspepsia.

4. In gastralgia, irritable stomach, nausea or vomiting.

5. In intestinal disorders.

(*a*) In constipation due to indigestion.

(*b*) In diarrhea, as a sedative.

(*c*) In intestinal worms. (This claim[1] the writer has not personally verified, but as the intestinal mucus which shields the worms is removed by papoid, it is easily understood that their removal would naturally result after its administration.)

6. In infectious disorders of the intestinal tract.

(*a*) Where there is abnormal fermentation; by its antiseptic action, which may be heightened by combination.

(*b*) Where there are foreign substances present, its detergent effect may be utilized in cleaning out the *débris* from the intestinal contents by digestion.

7. In infantile indigestion; here papoid not only readily peptonizes cow's milk, but the resulting curds are also soft and flocculent, resembling those of breast milk.

The dose of papoid, ordinarily, is one or two grains, but five grains or more may be used, the only objection being that of useless expense and waste, except where very prompt effects are desired, in which case even larger doses of the remedy may be administered. In case of obstruction of the esophagus by an impacted piece of meat and gristle—such as has been recently reported—a paste of papoid and water with some soda would produce softening in a very few minutes.—*New York Medical Journal*, July 30, 1892, p. 115, *et. seq.*

1. Descourtely and Tussac, *Flore des Antilles*, mentioned by Rossbach, *loc. cit.*

Progress in Medical Science.

SURGERY.

Conducted by JOHN PARMENTER, M. D.,

Professor of Anatomy and Assistant Professor of Clinical Surgery, Buffalo University, Medical College.

BRUISES OF THE BRAIN.

Sir Wm. Savory, (*Lancet*, July 2, 1892,) in a lecture on Bruises of Internal Organs, says of bruises of the brain: "Bruises of the brain are, I believe, far more common than is usually supposed, and worthy of much more attention than they have hitherto received. In works on surgery, contusion of the brain obtains a passing notice and occasionally, as at St. George's Hospital, a specimen to show contusion of the brain is to be found in our museums, but in practice it is for the most part included in the more vague and comprehensive condition of concussion. The relation of contusion to concussion of the brain presents some points of great interest. On what happens in a case of concussion pure and simple, we are not quite clear; certainly, we are not agreed, whether it be due to some sudden and temporary change in the minute vessels in the way of spasm, or whether — which I venture to think is more probable — it is due to some more subtle and profound molecular disturbance of the brain substance itself. As a matter of fact, we know that cases of simple concussion severe enough to prove fatal are so very seldom seen that some even doubt whether they ever actually occur. That, however, concussion of itself, pure and simple, may prove fatal, and that more frequently, when death from injury of the brain is attributed to other causes, it is really due to concussion I have no doubt, and the facts and arguments for this belief I have given elsewhere. So far, however, as the brain itself is concerned, the chief changes that are associated with severe concussion are contusion or bruising. In the worst instances this is accompanied by laceration of the brain substance and copious hemorrhage, so that the blood collects in a distinct mass, but many cases occur, short of these, in which there is neither visible laceration nor blood-clots, but simply a bruised condition of the cerebral substance, and this, perhaps, in a situation opposite to the part struck.

When, in such an instance, a section of the brain is made,

the white or grey matter, as the case may be, exhibits a patch or patches, pink or red from bloodstain; and when these are more minutely examined, especially after water has been allowed to flow freely over the surface, numerous minute points or specks of blood appear scattered over the stained area. In these places the substance of the brain show the effects of bruising. There is here some rupture of substance and some extravasation of blood, but no visible laceration, and nothing which would be called hemorrhage. There cannot, I think, be any reasonable doubt that this condition frequently occurs as the result of injury to the head short of any graver effect, and that such cases usually terminate in recovery.

Under the head of Concussion of the Brain, cases are described in which recovery is not rapid and direct, but more prolonged and circuitous, in which the patient passes days and even weeks in a state of partial unconsciousness or constant drowsiness, with sometimes fits of restlessness, from which, perhaps, he may be temporarily aroused to make short replies to simple questions, but into which he immediately relapses when left to himself. Then, as consciousness is gradually restored, the mind remains in a dull and lethargic state, interference of any kind is often resented, and the temper is sometimes strangely altered for the worse. Usually headache, more or less severe, is complained of. But the bodily functions in general in this stage are performed fairly well, and there is no fever or sign of serious disturbance in any other organ than the brain. In such cases many months often elapse before complete recovery is assured, and during this period its progress is easily interrupted by any attempts to exert the mind. Patients in this state complain that they cannot attend to business, that they are incapable of sustained mental effort, that they have lost the power of self-control, that their senses of sight, hearing, and taste are strangely disordered, and so on."

THE RESULTS OF REMOVAL OF THE UTERINE APPENDAGES.

Dr. Wharton Sinkler (*University Medical Magazine*,) sums up a timely article upon the effects of removal of the uterine appendages:

"The remote effects of removal of the ovaries and tubes upon the general health are, as a rule, to improve nutrition and to better strength, especially if the operation has been done for diseased ovaries or pus tubes; that excessive gain of flesh is rare, and that change of voice, growth of hair on the face, and loss of feminine

characteristics do not occur; that the sexual appetite is seldom changed within two or three years after the operation, but after several years it becomes lessened; that it is often the case that after this operation patients are more nervous than formerly, and mental disturbances of various forms, insanity, and epilepsy, not infrequently follow it; that the influence of the operation is sometimes good upon the insanity and epilepsy which are associated with severe dysmenorrhea, or occur periodically at the menstrual epochs; but when the insanity is constant, although it may be aggravated at the monthly periods, removal of the appendages is of no benefit. Hystero-epilepsy is seldom permanently cured by the operation. Prolonged after-treatment is generally necessary to relieve such cases.

"Local pain is often not relieved by the operation.

"Certain cases of neurasthenia which are associated with dysmenorrhea, or with structural changes of the ovaries, are cured by the operation; nevertheless, no such case should be subjected to the operation, without beforehand having the benefit of prolonged and patient treatment. It is unjustifiable to remove the ovaries and tubes in cases of neurasthenia, hysteria, etc., when these organs are healthy."

THE PRESENT STATUS OF THE SURGERY OF THE VERMIFORM APPENDIX.

Wyeth (*International Journal of Surgery*, July, 1892,) gives a clear and concise statement upon this subject. He describes the first case in which an operation was done after a diagnosis of perforation of the appendix had been made, and which resulted in recovery. The anatomical situation of the appendix is described and the method by which foreign material finds its way into it is thus detailed:

"Its lumen communicating with the great pouch, the largest part of the alimentary canal, into which is being poured during a good portion of the time, semi-liquid ingested matter, and various undigested particles under considerable pressure, no matter what position the subject assumes, it is no wonder that these contents find their way into this organ. Once in, the tendency is to remain; for this diminutive process has little peristaltic power to empty itself. Hence, by pressure of solid particles or fecal enteroliths formed by partial evaporation of the liquid contents, ulcers are

formed, and perforation, more or less rapid and complete, may occur, with escape of gas or other contents, or, without perforation, inflammation may be instituted, which spreads through the walls, and fires up the peritoneum in immediate contact. Moreover, pressure of the overlying and usually filled cecum directly upon the appendix must be an additional factor in the interference with its proper nutrition and the resulting breaking down.

"Again, when distended with gas, or even when empty and small, such is its unfortunate position that this pressure may shut off a proper blood supply and cause gangrene, general or localized pressure is undoubtedly increased in the sitting posture, and this may, in part, account for the frequency of appendicitis in those of sedentary habits."

The symptoms of catarrhal appendicitis and gangrene (general and local) are given, and these forms of appendicitis are illustrated by detailing cases belonging to one or the other type. The same is done with recurrent appendicitis.

The use of the exploring needle in diagnosticating the presence of pus is not justifiable, as it may be followed by serious consequences. "When the symptoms point to pus accumulations, the most surgical procedure is to cut down upon the swelling. If the peritoneum is adherent, you simply enter the abscess cavity. If you enter the peritoneal cavity, the abscess can be recognized and drained through an incision posteriorly and the anterior incision closed. A very small pus sac may be opened, scraped and cleaned, and packed with iodoform gauze without any posterior opening."

The author concludes with a description of the operative technique in the removal of the appendix, as follows :

"An incision about five inches long is made through the abdominal wall, parallel with the linea alba. The center of this incision should be about one-half of an inch below a line drawn from the anterior superior spine of the ilium to the umbilicus. All bleeding should be stopped by ligature before the peritoneum is opened. When this is done, any loops of small intestine which may protrude should be gently pushed toward the median line and held away by sterilized gauze napkins. The cecum is readily seen, and may be recognized by the longitudinal band, which, if followed downward, leads directly to the appendix. Should no adhesions be found, the end of the cecum may be slightly lifted and thus bring the appendix into view, when it can be dissected from its peritoneal attachments, commencing at the apex. About one-

fourth of an inch from its junction with the large intestine, a strong silk ligature is applied around it, and the appendix cut away with the scissors from one-eighth to one-fourth of an inch beyond the ligature. The end of the stump is rendered aseptic by thoroughly applying over its cut a surface solid tablet of mercuric bichloride. The ends of the ligature are cut off close to the knot after the toilet of the peritoneum. A piece of rubber tissue protective, disinfected by immersion in 1-5000 cool bichloride solution, is now placed so as to wall off the small intestines from the stump, and against this tissue is placed the iodoform gauze which fills the wound and projects to the surface through its lower one or two inches which is not closed by sutures. The rubber tissue is used because it does not adhere to the intestines as does the gauze. The upper remaining portion of the wound is closed as after an ordinary laparatomy. This dressing may remain for from three to ten days, preferably about seven days, when the gauze and tissue protective are pulled out, the wound irrigated with 1-3000 bichloride solution. A small strip of iodoform gauze or a soft rubber tube may be carried down to the bottom of the wound to insure drainage, and this finally removed in another week or ten days. For fear of ventral hernia, the patient should keep in bed for four or six weeks, to permit the lower part of the wound to close by strong cicatricial adhesion.

"When adhesions between contiguous loops of intestine and the appendix or cecum are met with, these should be carefully separated, and upon the discovery of pus or extravasated matter, this should be mopped out with sponges, taking care to prevent, if possible, the contact of septic matter with the general peritoneal cavity. The use of sterilized gauze napkins may aid in walling off the general cavity.

When the appendix is gangrenous or greatly distended, or has already been perforated, very considerable care is essential in dissecting it loose, either to prevent rupture or to avoid the escape of its contents.

"When a large agglutination is encountered, and the presence of a larger quantity of collected pus is evident, it is safer to use the anterior incision, which led to this discovery, as a guide to the entrance of the abscess from a posterior and retro-peritoneal incision through which drainage can be effected. The anterior wound can then be closed throughout by sutures; if not contraindicated, I prefer good sterilized silk for the sutures passing

through the skin, and carefully going through each layer of fascia and muscle, and the abdominal peritoneum at least one fourth of an inch from the cut edge of the peritoneum. When a general toilet of the peritoneum is indicated, I prefer irrigating this cavity with sterilized water (just boiled and cooled down to 100° F.). This is carried in from an elevated irrigator through a stiff blunt gutta-percha tube (boiled before using). As the general peritoneal cavity becomes filled, the fluid flows out through the opened wound. The remainder is sponged out until the cavity is dry and clean. I have once made a second opening in the median line in order to drain the deep pelvis. This is rarely indicated."

In conclusion upon this subject, Dr. Wyeth says: "Contrary to former teaching, so-called perityphlitis and perityphlitic abscesses are intraperitoneal lesions. They seemed to be retro-peritoneal after adhesions had taken place."

THERAPEUTIC NOTES.

By WILLIAM C. KRAUSS, M. D.,

Professor of Pathology, Niagara University, Medical College.

TREATMENT OF CHOREA BY EXALGINE.

In the *Journal of Nervous and Mental Disease* for July, 1892, Dr. Charles L. Dana, of New York, gives the results obtained in sixteen cases of chorea treated with exalgine. He expresses his opinion thus: "I have seen such results from exalgine properly given as to convince me that it unquestionably has a specific effect on the ordinary or Sydenham's chorea." His method of administration is by means of two-grain capsules, one three times a day the first day; one four times the second day; one five i. d. the third day; finally, three grains five i. d., if needed. The indications for its use are the common subacute chorea of Sydenham, not chronic chorea, habit chorea, convulsivitic, or chorea major. He has abandoned exalgine for the relief of pain, not having been rewarded with anything like favorable results.

[The abstractor has tried to use exalgine for the relief of pain in nervous diseases, also in two cases of chorea of Sydenham. His results were as discouraging and painful to the patient as to himself, and the drug was abandoned.]

THE TREATMENT OF INSOMNIA.

Dr. Joseph Collins, of New York, in an interesting article on insomnia, published in the *Journal of Nervous and Mental Disease*, July, 1892, contrasts the action of chloralamid and sulfonal in the treatment of insomnia, and arrives at the following conclusions:

1. Chloralamid is a safe and one of the most reliable hypnotics.

2. It is not ordinarily followed by distressing after-symptoms, particularly headache.

3. It is especially valuable as a hypnotic where pain is a prominent factor, but not violent.

4. In cases of insomnia, where there is excessive activity of the brain, it is also useful.

5. On account of its stimulating activity on the respiratory function, it is the hypnotic *par excellence* in nervous exhaustion, associated with an asthenic condition of respiration and symptom complex indirectly dependent on this, brought about by defective oxidation and the formation of unstaple chemical compounds in the system.

6. On account of its very slight action in depressing the circulation, it can be given in diseases associated with a weak heart, with greater safety than most of the other hypnotics, not excepting chloral itself.

7. It is conveniently administered in the shape of an elixir, and this overcomes the need of dissolving it.

8. Its dose is from one to three scruples, administered one hour before sleep is desired, and this should not be repeated within two hours, for occasionally the action of the drug is delayed.

Sulfonal is preferred when we wish to get very rapid action. It should be given dissolved in boiling water, taken as hot as possible. In this way it is at once absorbed, sleep frequently occurring in from fifteen to twenty minutes. The disadvantages of sulfonal are that the patient is liable to form the sulfonal habit, and that its effects last through part of the following day.

HYPNOTIC SUGGESTION FOR IMPOTENCE.

Impotence, according to Gywrkovecky, may be cured in its varied forms by hypnotic suggestion, which he has also found a very useful means of treatment in masturbation, nocturnal pollutions, etc.

In three cases of sexual neurasthenia he has had complete success from suspension in the Sayre apparatus.— *Wiener Med. Presse.*— *Medical Age.*

ON THE EMPLOYMENT OF SALANINE IN AFFECTIONS OF THE STOMACH, ESPECIALLY GASTRALGIA.

Dr. Sesnos, of Paris, has lately taken up the investigation of the effects of salanine in seventeen cases of gastralgia. Of this number, four were unsuccessful and thirteen successful. Of the successful cases, several were of gastric ulcers which had resisted all other forms of treatment. One case of cancer of the pylorus, with severe pain, vomiting, sleeplessness, etc., yielded to the drug, and marked improvement in all the symptoms was noticed. After continuing to progress favorably for several days, the patient was taken from the hospital by his friends, much improved in every condition.

The dose of salanine given daily was 5–15 centigrammes, in pill form, generally one hour before meals. As a rule, the administration of the drug was followed by no unpleasant symptoms.— *Bulletin Général de Thérapeutique*, June 30, 1892.

THE EFFECT OF PILOCARPIN UPON EPILEPTICS.

Dr. C. Féré, of Paris, was led to make a series of investigations on the use of pilocarpin in epilepsy, by reading the report of a Russian who has succeeded in treating cases in this manner. Dr. Féré's results were far from satisfactory. The injections of very small quantities were followed by the symptoms of an approaching attack, and, after a brief interval, the attack itself. In one case of epilepsy, in which the attacks had disappeared for some time, the injections called forth new attacks. Dr. Féré advises not to administer it in epilepsy, and to advoid it in old epileptics who have stopped the use of the bromides.—*Ext. des Comptes rendu des Séances de la Société de Biologie.*

ARSENIC IN CHOREA.

In a case of chorea treated by the abstractor, a girl of thirteen years, arsenic was cautiously administered at the onset of the affection, and the dose gradually increased until thirty-three drops of Fowler's solution was taken three times daily. At no time did any toxic symptoms of the stomach or perpheral nerves arise, and, furthermore, no beneficial results could be detected.

BUFFALO MEDICAL AND SURGICAL JOURNAL

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TOPICS OF THE MONTH.

DR. IRVING A. WATSON, of Concord, N. H., Secretary of the American Public Health Association, contributes an article to the August, 1892, *Sanitarian*, entitled, The Republic of Mexico, Medicine, Curative and Preventive. This paper was read before the New Hampshire Medical Society, at Concord, June 20, 1892, and is a review of the medical status in that interesting republic. It deserves to be read by every friend of improved medical education, and should be circulated widely as a reprint. It is interesting to observe the advanced standard that prevails in Mexico, which compares with our own country to our infinite discredit.

Dr. Watson says :

The requirements for the degree of M. D., at the School of Medicine, in the City of Mexico, are five years of study in the preparatory schools, and five years at the medical school, and even then a degree is not granted unless the student passes in the required examinations, which are in themselves rigid and thorough. The law of the country prohibits any person who does not possess the degree of M. D., from practising in any place where there is a legally qualified physician. In other words, when a graduate in the study of medicine locates in a town, all persons in the practice of medicine in that place not equally well qualified are obliged to cease the practice of medicine there.

And yet in the Empire State, in the year of our Lord 1892, we find medical students, medical professors, politicians, quacks, and what not, all combined to nullify the provisions of a law that would ask far less than is required of the graduate of medicine in the Republic of Mexico.

THE Illinois State Board of Health has issued an abstract of the minutes of the quarterly meeting, held at Chicago, July 27, 1892.

As is well known, this Board of Health has control of the practice of medicine in Illinois, in addition to its other duties. It is a pioneer in advancing the standard of medicine in this country, and its reports are always examined with great interest. In the abstract before us, we find a classification of the medical colleges of the United States into three groups :

1. Colleges requiring four or more years of study and four or more terms of lectures as conditions of graduation.

2. Colleges requiring four or more years of study and three terms of lectures as conditions of graduation.

3. Colleges requiring three or more years of study with three or more terms of lectures as conditions of graduations.

We take pleasure in printing the names of the medical schools of the first class, which are as follows :

Chicago Medical College, Medical School of Northwestern University, Chicago, Ill.; Harvard University Medical School, Boston, Mass.; Boston University School of Medicine, Boston, Mass.; Department of Medicine and Surgery, University of Michigan, Ann Arbor, Mich.; Leonard Medical School, Raleigh, N. C.; Medical University, Faculty of Medicine, Montreal, Que.; University of Toronto, Faculty of Medicine, Toronto, Ont.; Ecole de Medecine et de Chirurgie, Montreal, Que.; Trinity Medical College, Toronto, Ont.; Laval University, Medical Departments, Quebec and Montreal, Que.; Royal College of Physicians and Surgeons, Kingston, Ont.; Halifax Medical College, Halifax, N. S.; Dalhousie University, Faculty of Medicine, Halifax, N. S.; University of Bishop's College, Faculty of Medicine, Montreal, Que.; Medical Department of Western University, London, Ont.; Woman's Medical College, Toronto, Ont.; Women's Medical College, Kingston, Ont.; Manitoba Medical College, Winnipeg, Man.

We hope it will be soon required in the State of New York to place their colleges on this honor roll.

The Necessity and Best Method of Regulating the Practice of Medicine, is the title of an address delivered by Dr. Perry H. Millard before the American Academy of Medicine, at it annual meeting, June 6, 1892. This is a plea for an advanced standard in medical education, and is one of the most interesting papers on the subject that we have lately read.

In the course of the discussion, Dr. Millard pleads for adequate medical legislation throughout the United States, looking to the

establishment of separate State Examining and Licensing Boards. He submits the following statistics in support of his argument, which deserve to be preserved in the memory of every American physician who is interested in the subject of medical pedagogics and a separate State license. Ratio of physicians to population: Sweden, 1 to 7,000; Italy, 1 to 3,500; Germany, 1 to 3,000; Austria-Hungary, 1 to 2,400; France, 1 to 2,000; United States, 1 to 600.

Dr. Millard remarks that Minnesota has a smaller number of physicians to its inhabitants than any State in the Union, and St. Paul a smaller number to its inhabitants than any of the larger cities of the United States. He believes the result in that city is wholly due to efficient legislation; and that the effect of the present law has been to enhance the welfare of both the profession and the public.

In a letter to the *Times and Register*, published in its issue of July 23, 1892, Dr. Joseph Price, of Philadelphia, pays a deserved tribute to Dr. Alice Bennett, who has had the management of the Woman's Department in the Norristown Insane Asylum since its erection, twelve years ago.

It is not long since it was regarded as an experiment to employ women physicians in hospitals for the insane. The principle has now become established as one, if not of necessity, at least of propriety, of which Dr. Alice Bennett's success is ample testimony.

Dr. Price says:

> This remarkable woman has placed the management of this institution upon a high plane. We doubt whether there exists an institution of the kind in our own or any other country under more perfect management. It is a model of tasteful, orderly appointment and cleanliness, and that quiet which would not be expected in an institution for the insane.

We wish we had space to give the letter entire, for it is worthy of wide circulation. Dr. Price concludes as follows:

> It is a matter of high congratulation that the almost perfect management of the Norristown institution is that of a woman. The stimulus of the responsibility by such positions is the highest of educational influences, and women should push into these kindred places of trust wherever there is an open door.

At a meeting of the Michigan State Board of Health, held July 12, 1892, the Secretary, Dr. H. B. Baker, called attention to the

reported presence of cholera in foreign countries, and the possibility of its being brought to our shores. Dr. Baker remarked that it would be a particularly unfortunate time if cholera should reach Chicago or Detroit during the period of the World's Fair. The Michigan State Board of Health is prepared to instruct local health officers relating to the restriction of cholera, and its action is most timely in reference to its possible invasion. Great maritime ports like New York are always the most dangerous avenues of approach, and we have no doubt our own State Board of Health, together with the National authorities, will furnish all the protection that preventive science and skill can command.

In our own city the health department is under capable medical administration, and we have every reason to believe that all avenues of approach will be as carefully guarded as possible, provided our municipal authorities make timely appropriation of money to arm the Health Commissioner and his assistants with the sinews of prevention. Fifty thousand dollars should be placed at the disposal of Health Commissioner Wende at once, to be used, if necessary, and at his discretion, for the prevention and restriction of infectious epidemics.

The Sixteenth Year Book, containing the annual report of the Board of Managers of the New York State Reformatory, at Elmira, for the year ending September, 1891, contains valuable information bearing on the question of the methods of reform as related to the refractory youths of this State. Dr. William C. Wey is President of the Board of Managers of this excellent institution, and to his sagacious and able management the institution owes a large measure of its success. It is, strictly speaking, an educational and physical training school, dealing with moral, physical, and sanitary questions as a broad and underlying basis. The report is well illustrated with several phototypes, which add much to the interest of the brochure.

The New York *Medical Times* has so concisely stated the relationship existing between publisher and subscriber in so far as medical journals are concerned, that we cannot resist the temptation to print the following :

It is the custom of nearly all medical journals to continue subscriptions until notified that the journal is no longer wanted, or it becomes apparent to the publisher that there is no intention of the subscriber

ever making any pecuniary return. The law holds a subscriber responsible for a periodical so long as it is taken from the office, and yet a medical journal very seldom avails itself of this very wise legal provision. Every year a bill is sent to each subscriber with the amount of indebtedness. It is certainly not too much to ask if the journal is wanted, a prompt return of the subscription, and if it is not wanted, a postal asking for its discontinuance. A second notice from a subscriber to discontinue will never be needed. The publisher of the *Medical Times*, while always glad to extend its circulation, has no wish to have that circulation include a single person who does not find something of interest in its pages. The conducting of a medical journal is in no sense a money-making business, more especially when it is entirely independent of great publishing or drug houses, to whom it may be important as an advertising medium. Again the publisher assures its readers that while he warmly appreciates every effort in the past of the friends of the *Times* to extend its circulation, any notice to discontinue will be promptly heeded.

The above so nearly expresses our attitude and belief in this matter, that we respectfully invite attention to it. The present management of the JOURNAL has always refrained from introducing any business question before its subscribers in its editorial columns, but we trust, in this instance, we will be pardoned for so doing, since it is more of an explanation of our relations with our subscribers than a disposition to complain or criticise.

AT THE Convention of the National Association of Railway Surgeons, held at Old Point Comfort, in May, 1892, Dr. Joshua Chitwood, of Connersville, Ind., read a paper entitled, Cranial Injuries, with a Report of a Case. The trend of the paper was to advise what he is pleased to call "conservatism" in the management of head injuries in general, where the symptoms are obscure, or the injury is not sufficiently plain in its external manifestation to justify surgical interference. In the discussion of this paper, Dr. Emery Lanphear, of Kansas City, speaks as follows :

I enter a solemn protest against the so-called conservative treatment of injuries of the head. There is no injury that is so important to the railway surgeon as an injury involving the bone of the cranium. There is no injury that is so poorly treated, as a rule.

In regard to the assertion of the essayist, that injuries which will perhaps result in epilepsy eventually should be left until the epileptic symptoms make their appearance, I do not believe it to be based upon rational surgery, and I would cite the assertion of the late Professor Agnew in the last paper which he prepared, in which he stated

not only in ordinary print, but in italics, that every case of injury of the head, which would eventually terminate in an epilepsy, should be operated upon directly after the reception of the injury, if possible; because experience has taught those who have operated for traumatic epilepsy that very few cases terminate favorably if left until after the epileptic manifestations have appeared; whereas, injuries which would necessarily result because of the injury to the motor area in epilepsy, if operated on at the time of the accident, or directly thereafter, may be prevented in a large proportion of cases.

Again, we go too far in letting our patients alone when they are unconscious. From an experience of over forty cases of brain surgery, I have learned that every case of injury to the head, in which the comatose condition persists for more than two or three hours, demands imperatively that the surgeon should go in and ascertain what the injury is. If he enters the cranium with clean hands and clean instruments, there is absolutely no danger to be feared from his operative interference; whereas, if he does not investigate the case, he may find too late that he has had rupture of the middle meningeal artery with the formation of a clot which will produce death, or, at least, very serious symptoms, for which the company he represents will be liable. I, therefore, repeat that we can carry conservative treatment entirely too far. I, for one, enter a hearty plea for more invasion of the cranial cavity and less conservatism in those cases accompanied by coma. [Applause.]

The remarks of Dr. Lanphear really cover the whole question so pointedly that we have quoted them in full. There is a tendency just now in many quarters to demand so-called "conservative" surgery for grave and destructive conditions, either from disease or injury, which relate to the several cavities of the body. In our review of the Southern Surgical and Gynecological Transactions in the August number of the JOURNAL, we took occasion to refer to this subject as related to the cavities of the pelvis and abdomen. Following out this line of thought, we have called attention to it as pertaining to the cranial cavity, and we invite the attention of our readers to a careful and considerate study of this side of the question.

THE *Ontario Medical Journal* was announced to be published in Toronto, and the first number to appear on or about the 15th of August, 1892. It is the organ of the College of Physicians and Surgeons, of Ontario, and is supplied, by order of the Council, to to every medical practitioner in Ontario, free.

Dr. R. B. Orr is announced as managing editor, whose address is 147 Cowan avenue, Toronto, Canada.

Bulletin No. 3 of the Harvard Medical School Association, containing a report of the second annual meeting, held in Boston, June 28, 1892, is received. The President of this Association is Dr. James R. Chadwick, of Boston, and the Secretary is Dr. Robert Williamson Lovett, also of Boston. This bulletin contains the proceedings of the annual meeting, together with the speeches made at the dinner. It is one of the handsomest alumni publications that we have ever seen, and ought to serve as a model for these organizations in other medical schools.

The *Weekly Bulletin of Newspaper and Periodical Literature*, published at 5 Somerset street, Boston, Mass., is one of the most useful catalogues of events that we are familiar with. It contains, besides all the current weekly news, a department of classified medical literature, including references to articles from the Buffalo Medical and Surgical Journal. Its value to readers, writers, and students is sufficiently indicated by its title, and it ought to be on the library table of every author, teacher, and student in letters, law, medicine, and science.

Society Meetings.

The American Association of Obstetricians and Gynecologists will hold its fifth annual meeting at the Lindell Hotel, St. Louis, Tuesday, Wednesday, and Thursday, September 20, 21, and 22, 1892. The President, Dr. A. Vander Veer, of Albany, N. Y., wishes it understood that all members of the medical profession interested in the subjects discussed, or who are friends of the association, even though not especially interested in its branch of work, are most cordially invited to attend the several sessions.

The Lindell Hotel will be the headquarters of the Association during the meeting, and has a convention hall which will provide ample accommodations for its sessions.

By order of the Executive Council.

The second International Dermatological Congress will be held in Vienna from the 5th to the 10th of September, 1892. It is expected that this will be one of the most notable dermatological meetings

ever held. The congress will be presided over by Professor Kapesi, and many members of the American Dermatological Association and of the New York Dermatological Society are arranging to attend. Dr. Prince A. Morrow, of New York, is Secretary for North America.

The American Orthopedic Association will hold its sixth annual meeting at the New York Academy of Medicine, under the presidency of Dr. Benjamin Lee, of Philadelphia, September 20, 21, and 22, 1892. An excellent programme has been issued, and the meeting cannot fail to prove useful and entertaining.

The American Dermatological Association announces its sixteenth annual meeting, to be held at the Pequoit House, New London, Conn., September 13, 14, and 15, 1892, under the presidency of Dr. E. B. Bronson, of New York. The excellent classified programme already issued indicates an unusually interesting meeting.

The American Gynecological Society will hold its regular annual meeting, in Brooklyn, September 20, 21, and 22, 1892, under the presidency of Dr. John Byrne.

Personal.

Dr. George L. Brown announces his removal from No. 173 Niagara street to 121 Franklin street, Buffalo. His office hours are 9 to 11 A. M., 1 to 4 P. M. Sundays, 10 A. M. and 2 P. M. Residence, 204 Highland avenue.

Dr. John O. Roe, the well-known laryngologist, of Rochester, N. Y., has been invited by the faculty of the Tennessee Medical College, at Knoxville, to deliver a special course of four lectures in the department of laryngology and rhinology. Several distinguished specialists in other branches have also accepted similar invitations, which will add to the interest of the Winter term in that institution. It is expected that Dr. Roe's lectures will be delivered during February, 1893, and they will be of a practical nature.

Dr. Bransford Lewis, editor of the *Medical Fortnightly*, has recently been appointed Consultant in Genito-Urinary Surgery to the City Hospital, the Female Hospital, the Missouri Pacific Hospital, and St. Mary's Infirmary, in St. Louis. Dr. Lewis is well fitted for these honorable stations.

Dr. W. E. B. Davis, whose removal to Rome, Ga., we chronicled in the February number of the Journal, has returned to Birmingham, Ala., and again taken up his practice there. The Davis brothers are renowned for their excellent surgical and gynecological work, and in keeping their interests united are acting for the best interests of a large region of country, of which Birmingham is the natural center.

Book Reviews.

Regional Anatomy in Its Relation to Medicine and Surgery. By George McClellan, M. D., Lecturer on Descriptive and Regional Anatomy at the Pennsylvania School of Anatomy; Professor of Anatomy at the Pennsylvania Academy of the Fine Arts; Member of the Association of American Anatomists, Academy of Natural Sciences, Academy of Surgery, College of Physicians, etc., Philadelphia. Illustrated from photographs taken by the author of his own dissections, expressly designed and prepared for this work, and colored by him after Nature. In two volumes. Volume II., quarto, pp. xiv.—414. Philadelphia: J. B. Lippincott Co. 1892.

Those already familiar with Vol. I. of this most excellent treatise have been expectantly awaiting the appearance of Vol. II. Doubtless much curiosity has existed as to whether the second volume would equal in merit its predecessor. Those who had formed a high estimate of the latter will suffer no disappointment upon perusal of the volume now at hand. It sustains fully the reputation which Vol. I. gained for the author.

The opening pages take up the abdomen and its contents, and are replete with good practical anatomy. Especially commendable from this point of view is the treatment of the surface anatomy of the abdominal walls, the information given being a judicious combination of existing literature and the personal experience of a surgeon and anatomist. The author then discusses, in the same practical way, the inguinal, pelvic, and perineal regions. These regions afford him an excellent opportunity for displaying his

powers as a writer of regional anatomy, as we commonly understand this term, and we are sure the practitioner will find a mine of useful and correct information in the pages devoted to these portions of the human frame. The back, lumbar and gluteal regions, the hip and lower extremity complete the volume, and here, as elsewhere, the pages fairly bristle with applications of the anatomy given to practical medicine and surgery. The operations common to these various regions such as those upon the kidney and colon, the different amputations, fractures and dislocations, and other surgical conditions occurring in these parts, are given in detail. One forgets at times that he is reading an anatomy at all and could readily imagine his pages belonging to a work on surgery.

There are two states of mind which can lead the reviewer of a first-class book like this to temper his praise. The one, a very common one, is that no review is complete unless some fault has been found, and incidentally the reviewer takes occasion to air his ability as a critic. The other has its origin in an inherent desire in the human mind to have that which is so nearly perfect entirely so, and a criticism actuated by such a motive is meant solely for the good of the author and his book. It is the latter state of mind which allows us to venture the opinion that in this most admirable work the author has now and then let slip an opportunity to keep the pages of his book of equal merit. A case or two in point: Upon page 222, in describing the *gluteus maximus* muscle, the following statement occurs: "This muscle is supplied by the lesser sciatic nerve, etc." The author makes no comment upon the fact that this nerve is essentially concerned in furnishing sensation to the integument over the genitalia, and that, in supplying a muscle whose companions, the *medius* and *minimus*, get their nerve supply from a different source (the superior gluteal), there must be some good and sufficient reason, which, according to Hilton, is that the action of this muscle in its relation to coitus makes it necessary that it be in sympathy with the genitalia, and, hence, they have a common nerve supply.

Again, in speaking of the ligamentum teres, nothing is said of Tillaux's theory of its function, to our mind the best that has been advanced, viz.: that it acts as a buffer between the head of the femur and the bottom of the acetabulum. Dr. McClellan thinks it may render some slight assistance to muscles steadying the pelvis in the erect position. The point, to be sure, is not a great one, but

where little is known upon any subject, it is, in our opinion, worth while to tell all that is reasonable that is known about it.

But deficiencies such as these are only slight blemishes and do not really impair the worth and usefulness of the work, which has been constructed in the main out of the best material and by a most competent architect.

The publishers have left nothing to criticise in the general dress of the book. The plates are quite equal to those of Vol. I., and while we adhere to the opinion expressed in a review of Vol. I., that oftentimes a schematic representation serves a better purpose than photographs of dissections, still the latter have their place and many of these are certainly models of their kind.

J. P.

THE SCIENCE AND ART OF MIDWIFERY. By WILLIAM THOMPSON LUSK, A. M., M. D., Professor of Obstetrics and Diseases of Women and Children in the Bellevue Hospital Medical College; Consulting Physician to the Maternity Hospital and to the Foundling Asylum; Visiting Physician to the Emergency Hospital; Gynecologist to the Bellevue and to the St. Vincent Hospitals; Honorary Fellow of the Edinburgh and London Obstetrical Societies; Corresponding Fellow of the Obstetrical Societies of Paris and Leipzig; Corresponding Fellow of the Paris Academy of Medicine, etc. New edition. Revised and enlarged, with numerous illustrations. New York: D. Appleton & Co. 1892.

This edition is the fourth of this valuable work. The third edition was issued in 1885, and, up to that date, contained all the advances made in this important department of medicine. The present edition is essentially a new work, having been rewritten to include the still greater advances of the last decade.

Dr. Lusk shows his experience as a teacher in making his work subserve the double purpose of a text-book for the student and a reference book for the practical obstetrician. The arrangement of subjects follow in a natural and logical order. In the first three chapters, the Anatomy of the Internal and External Genitalia, the Development of the Ovum and Fetus are presented. The fourth and fifth chapters treat of the Physiology of Pregnancy, and the following six chapters are devoted to the consideration of Labor. This portion of the volume furnishes a valuable text-book for the student in following the lecturer. The various subjects are treated clearly and concisely. The Physiology and Management of Childbed takes up one chapter, and is full of practical rules and useful suggestions. The author wisely avoids the lax methods, now pre-

vailing, which sanction a free diet after labor, and the too early substitution of the erect for the recumbent position, before involution has been accomplished.

The chapters on the Pathology of Pregnancy are devoted to accidental complications and abnormalities of the uterus, diseases of the decidua and ovum, premature expulsion of the ovum, and extra-uterine pregnancy.

The chapters on Obstetric Surgery include the induction of premature labor, the forceps, and its application, breech presentations, version, craniotomy and embryotomy, and Cesarean section.

The Pathology of Labor takes up eleven chapters, which are devoted to the consideration of the anomalies of the expelling forces, contracted pelves and their treatment, rare forms of pelvic distortion, abnormalities of the sexual organs and of the fetus, eclampsia, post-partum hemorrhage and retained placenta, placenta previa, accidental hemorrhage, inversion of the uterus, rupture of the genital canal, and prolapsus funis.

The last three chapters consider the Diseases of Child-bed, Puerperal Infection and Insanity, Phlegmasia Dolens and Diseases of the Breasts.

The above furnishes an outline of the subjects treated. The volume claims a favorable criticism and warm endorsement. The publishers have shown commendable enterprise in equipping this valuable work with paper and typography that makes it attractive to the reader.

First Lines in Midwifery: A Guide to Attendance on Natural Labor for Medical Students and Midwives. By G. Ernest Herman, M. D., F. R. C. P., Obstetric Physician to the London Hospital, and Lecturer on Midwifery; Examiner in Midwifery to the Royal College of Surgeons. In one 12mo volume of 198 pages, with eighty illustrations. Cloth, $1.25. Students' Series of Manuals. Philaphia: Lea Brothers & Co. 1892.

The object of this little book is to give to the student in attendance on his first case of labor such elementary knowledge as is needed for the safe management of natural labor. With a view to adapt the work to midwives, a chapter on anatomy has been prefixed.

The work is an excellent compend for the under-graduate to take in his pocket when attending his first obstetric cases, to refresh his memory while waiting for the delivery, and to give confidence until experience is gained.

DRINKING WATER AND ICE SUPPLIES AND THEIR RELATIONS TO HEALTH AND DISEASE. By T. MICHELL PRUDDEN, M. D., author of The Story of Bacteria; Dust and Its Dangers, etc. Pp. 148. G. P. Putnam's Sons, New York, 27 W. Twenty-third street; London, 27 King street, Strand. The Knickerbocker Press. 1891.

We are pleased to find in this little volume a fitting complement to Dr. Prudden's former admirable contributions, relative to public health and sanitary measures.

Whether used to allay thirst, in the preparation of food, or as a remedial agent, water has ever been the subject of jealous investigation. By its known or supposed curative qualities in certain classes of diseases, its good name has been made use of by pseudo-scientists and quacks, and while Nature by her wonderful chemistry has provided abundance of salutary sources in aid of medical science, ill-smelling puddles of no value have often been made to do duty in aid of designing avarice.

A great deal of ignorance, too, has been ventilated in the daily press as to the purity or impurity of the water we drink, the solar microscope has given us exhibitions of its fearful fauna, money has been wasted in costly devices for filtering that are more or less useless, warnings of all sorts against water in its natural state have made even men afraid to quench their thirst.

The purpose of the little volume before us is clearly outlined in the first chapter, thus:

> There are a good many fancies and beliefs about drinking-water which are founded on ignorance, perpetuated by indifference, and culminate in serious physical disorders. These the writer wishes to expose and combat. There have been many new and important revelations within the past few years about the relations of good water to good health, and of bad water to varying degrees of bad health. These, with what clearness he can master, the writer purposes to set forth.

After a brief review of the chemical history of water, attention is paid to its geological position, and especially the purifying filtering process which it undergoes in percolating the various strata of the earth, a very plain and easily understood account being given of the way in which this is accomplished. Several chapters are then devoted to the bacteria. Here we are relieved to find that among this large number of minute organisms few are dangerous to health,—indeed, the larger part seem to be beneficial, as they contribute to the destruction of much that would be harmful.

Dr. Prudden says :

It is very unfortunate that the earliest notions which people nowadays get of these minute living things should usually be associated with their relationship to disease.

And again :

There are, indeed, as I have intimated, some very stern realities associated with a few species of bacteria, but they need not overshadow existence, even in crowded towns, if we live up to the light which science is throwing wide abroad in this domain, and do not permit the sanitary affairs of our municipality to fall into the clutches of mercenary political tricksters.

The latter part of the work is devoted to useful directions how to obtain water, the management in regard to wells, their structure and position, etc. The book is written in a pleasant style, wholly free from bewildering technicality, every word with telling effect as well adapted to the simplest as to the most comprehensive understanding.

A Manual of Diseases of the Nervous System. By W. R. Gowers, M. D., F. R C. P., F. R. S., Consulting Physician to the University College Hospital ; Physician to the National Hospital for the Paralyzed and Epileptic. Second edition. Revised and enlarged. Volume I. Diseases of the Nerves and Spinal Cord, with 180 illustrations, including 370 figures. Pp. 616. Cloth. Philadelphia : P. Blakiston, Son & Co., 1012 Walnut street. 1892.

The excellence of the first edition of Gowers's work won for it at once a high place as an authority. So careful has the author been in explanation and elaboration of his work, that he easily takes rank as one of the clearest writers it has ever been our pleasure to read.

The second edition has been thoroughly revised, and new chapters added. The work is fully up to date, and we can best express our opinion of it by saying that there is no better work on nervous diseases, and very few so good and complete. The publishers have done their work in the very best style. The type, paper, and illustrations, all are excellent. J. W. P.

BOOKS AND PAMPHLETS RECEIVED.

Hydrotherapy of Saratoga. A Treatise on Natural Mineral Waters. By J. A. Irwin, M. A., Cambridge, Eng.; M. A., M. D., Dublin University ; L. M., College of Physicians, Ire.; Member of Royal College of Surgeons, Eng.; Member of the British Medical Association ; Fellow of

the London Obstetrical Society, and the New York Academy of Medicine, etc.; Formerly House Surgeon Royal Free Hospital, London; Medical Officer Shropeshire and Montgomeryshire Counties Lunatic Asylum, and Physician to the Manchester Southern Hospital for Women and Children. Cassell Publishing Co., New York.

Essentials of Medical Diagnosis, arranged in the form of questions and answers, prepared especially for students of medicine, by Solomon Solis-Cohen, M. D., Professor of Clinical Medicine and Applied Therapeutics in the Philadelphia Polyclinic; one of the Physicians to the Philadelphia Hospital, etc.; and Augustus A. Eshner, M. D., Instructor in Clinical Medicine in Jefferson Medical College and in the Philadelphia Polyclinic; Registrar in the Neurological Department of the Philadelphia Hospital, etc., with fifty-five illustrations, some of which are colored, and a frontispiece. Philadelphia: W. B. Saunders, 913 Walnut street. 1892.

A New Pronouncing Dictionary of Medicine. Being a voluminous and exhaustive hand-book of Medical and Scientific Terminology, with phonetic pronunciation, accentuation, etymology, etc. By John M. Keating, M. D., LL.D., Fellow of the College of Physicians of Philadelphia; Vice-President of the American Pediatric Society; Ex-President of the Association of Life Insurance Medical Directors; formerly Visiting Obstetrician to the Philadelphia Hospital (Blockley), and Lecturer on the Diseases of Women and Children; Consulting Physician for the Diseases of Women, St. Agnes' Hospital, Philadelphia; Gynecologist to St. Joseph's Hospital, Philadelphia; Editor Cyclopedia of the Diseases of Children, etc.; and Henry Hamilton, author of a New Translation of Virgil's Aeneid into English Rhyme; co-author of Saunders' Medical Lexicon, etc., with the collaboration of J. Chalmers DaCosta, M. D., and Frederick A. Packard, M. D. With an appendix containing important tables of bacilli, micrococci, leucomaines, ptomaines, drugs, and materials used in antiseptic surgery; poisons and their antidotes; weights and measures; thermometric scales; new officinal and unofficinal drugs, etc., etc. Philadelphia: W. B. Saunders, 913 Walnut street. Price, $5 net, cloth; $6 net, sheep.

Transactions of the American Dermatological Association at its fifteenth annual meeting, held at the Shoreham Hotel, Washington, D. C., on the 22d, 23d, 24th, and 25th of September, 1891, in connection with the Congress of American Physicians and Surgeons. Official report of the proceedings. By George Thomas Jackson, M. D., Secretary. New York, 1891.

U. S. Department of Agriculture. Division of Chemistry. Bulletin No. 13. Foods and Food Adulterants. Investigations made under the direction of H. W. Wiley, Chief Chemist. Part Seventh. Tea, Coffee, and Cocoa Preparations. By Guilford L. Spencer, Assistant Chemist, with the collaboration of Mr. Ervin E. Ewell. Published by authority of the Secretary of Agriculture. Washington: Government Printing Office. 1892.

U. S. Department of Agriculture, Division of Chemistry, Bulletin No. 33. Experiments with Sugar Beets, in 1891, by Harvey W. Wiley, Chief Chemist of the U. S. Department of Agriculture, and Director of the Department Sugar Experiment Stations at Schuyler, Nebraska, etc., with the collaboration of Dr. Walter Maxwell, Prof. W. A. Henry, and

others. Published by authority of the Secretary of Agriculture. Washington: Government Printing Office. 1892.

U. S. Department of Agriculture, Division of Chemistry, Bulletin No. 34. Record of Experiments with Sorghum, in 1891, by Harvey W. Wiley, Chemist of the U. S. Department of Agriculture, and Director of the Department of Sugar Experiment, etc., with the collaboration of Dr. G. L. Spencer, Mr. A. A. Denton, and Mr. Wibray J. Thomson. Published by authority of the Secretary of Agriculture. Washington: Government Printing Office. 1892.

What to Do in Case of Accident. By B. Merrill Ricketts, Ph. B., M. D., Cincinnati. Printed by James Barclay, 124 Canal street. 1892.

Diseases of Women: a Manual of Non-Surgical Gynecology. Designed especially for the use of students and general practitioners. By F. H. Davenport, A. B., M. D., Instructor in Gynecology, Harvard Medical School; Assistant Surgeon to the Free Hospital for Women; Physician to the Department of Gynecology, Boston Dispensary. Second edition, revised and enlarged, with numerous illustrations. Philadelphia: Lea Brothers & Co. 1892.

Cardiac Outlines for Clinical Clerks and Practitioners, and First Principles in the Physical Examination of the Heart, for the Beginner. By William Ewart, M. D., Cantab., F. R. C. P. Physician to St. George's Hospital; Clinical Lecturer and Teacher of Practical Medicine in the Medical School; Physician to the Belgrave Hospital for Children; Additional Examiner, in 1891, for the third M. B. of the University of Cambridge; late Assistant Physician and Pathologist to the Brompton Hospital for Consumption and Diseases of the Chest. With sixty-two illustrations. G. P. Putnam's Sons, New York, 27 West Twenty-third street. London, 24 Bedford street, Strand. The Knickerbocker Press. 1892.

A Treatise on Diseases of the Nose and Throat, in two volumes. By Francke Huntington Bosworth, A. M., M. D., Professor of Diseases of the Throat in the Bellevue Hospital Medical College, New York; Consulting Laryngologist to the Presbyterian Hospital; Consulting Physician to the O. D. P. of the Bellevue Hospital; Fellow of the American Laryngological Association, of the American Climatological Association, of the New York Academy of Medicine; Member of the New York Laryngological Society, of the Medical Society of the County of New York, etc., etc. Volume II. Diseases of the Throat. With three colored plates and 125 wood-cuts. New York: William Wood & Co. 1892.

Bureau of Education. Circular of Information No. 6, 1891. Contributions to American Educational History, edited by Herbert B. Adams. No. 15, History of Higher Education in Massachusetts, by George Gary Bush, Ph. D. Washington: Government Printing Office. 1891.

Proceedings of the Florida Medical Association. Session of 1892. Jacksonville, Fla.: Dacosta Printing and Publishing House. 1892.

Transactions of the thirteenth annual meeting of the American Laryngological Association, held in the city of Washington, D. C., September 22, 23, and 24, 1891. New York: D. Appleton & Company. 1892.

Transactions of the Medical Society of the State of New York for the year 1892. Edited by Frederic C. Curtis, M. D., Secretary. Octavo, pp. viii.—540. Published by the Society. William J. Dornan, Printer.

Book on the Physician Himself, and Things that Concern His Reputation and Success. By D. W. Cathell, M. D. New tenth edition (author's last revision). Thoroughly revised, enlarged, and rewritten. In one handsome royal octavo volume. 348 pages. Bound in extra cloth. Price, post-paid, $2.00 net. Philadelphia: The F. A Davis Co., Publishers, 1231 Filbert street.

Bureau of Education. Circular of Information No. 1, 1892. Southern Women in the Recent Educational Movement in the South. By Rev. A. D. Mayo, M. A. Washington: Government Printing Office. 1892.

Transactions of the eighth annual meeting of the American Climatological Association, held at Washington, D. C., September 22, 23, 24, and 25, 1892. 8vo, pp. xvi.—276. Philadelphia: W. B. Saunders. 1892.

Diseases of the Stomach. By Dr. C. A. Ewald, Extraordinary Professor of Medicine at the University of Berlin, Director of the Augusta Hospital, etc. Authorized Translation from the Second German Edition, with Special Additions by the Author. By Morris Manges, A. M., M. D., Attending Physician to Out-door Department, Mount Sinai Hospital, New York, etc. With 30 illustrations, 8vo, pp. xiv.—497.

Naphey's Modern Therapeutics. Medical and Surgical, including the Diseases of Women and Children. A Compendium of Recent Formula and Therapeutical Directions from the Practice of Eminent Contempory Physicians, American and Foreign. Ninth edition, revised and enlarged. Vol. I. General Medicine and Diseases of Children, by Allen J. Smith, M. D., Assistant Demonstrator of Morbid Anatomy and Pathological Histology, Lecturer on Urinology, etc., University of Pennsylvania, and J. Aubrey Davis, Assistant Demonstrator of Obstetrics, etc., University of Pennsylvania, Octavo, pp. xx.—1,034. Philadelphia: P. Blakiston, Son & Company. Buffalo: Peter Paul & Brother.

Miscellany.

THE NEW YORK STATE LAW CONTROLLING THE PRACTICE OF MEDICINE.

We take pleasure in printing the following letter from the first number of the *American Therapist*, a new journal devoted to modern therapeutics, edited by John Aulde, M. D., published in New York, and which appeared in July, 1892. This letter is ample testimony, from a disinterested source, of the usefulness and practical good working of the law providing for separate State license to practice medicine in the State of New York:

To the Editor:—In the report for 1890 of the Board of Health of the State of Illinois on Medical Education in the United States and

Canada, it is shown that in the decade from 1879 to 1889 there were 128,005 matriculants in the various medical colleges, both regular and sectarian, with 40,495 graduates; the medical profession of this country being augmented by an annual addition of more than 4,000 physicians.

During the period mentioned there has been a slight increase in the number of colleges; while those that exact educational requirements for matriculation, and attendance on three or more courses or lectures, have increased almost 300 per cent. And a better indication of the determination of the colleges to send out well-equipped graduates, is shown by more than twenty per cent. of the colleges now requiring four years of medical study as a requisite for graduation.

This action by the colleges is in conformity with the increasing number of States that have passed laws regulating the practice of medicine; the advantages of such legislation being so apparent, argument in its favor is supererogatory.

After many efforts, and at a rather late date, the State of New York has enacted laws controlling the practice of medicine that seem to promise much for the future. These laws may be divided into three sections; the first providing for the preliminary education of medical students; the second regulating the licensing and registration of physicians and surgeons; and the third providing for the establishment of boards of medical examiners.

The first section requires that a matriculate must be a graduate in arts, science, or philosophy, from some college in good standing; or, in lieu thereof, he must have passed an examination in arithmetic, grammar, geography, orthography, American history, English composition, and natural philosophy, or in some substantial equivalent of one or more of the foregoing, the examination being conducted under the authority of the Regents of the University of the State of New York.

The second section requires the applicant for registration to be over twenty-one years of age; to have certificates of moral character from two legally licensed physicians; a diploma conferring the degree of M. D. from some legally incorporated medical college in the United States, or a diploma or license conferring the right to practise medicine and surgery in the country in which it was granted; evidence that the applicant has studied medicine three years, including *three* courses of lectures in different years, in some legally incorporated medical college or colleges, no two of

the above courses of lectures beginning or ending in the same calendar year; the candidate must pass examinations in anatomy, physiology, hygiene, chemistry, surgery, obstetrics, pathology, and diagnosis, therapeutics, practice, and materia medica. In the last three departments, the questions must be in harmony with the tenets of the school selected by the candidate. A fee of $25 must be paid in advance.

The third section provides that boards of examiners shall represent the medical society of the State and the homeopathic and eclectic medical societies. Each board consists of seven members, each of whom serves for three years, appointed by the Regents of the University from a list of at least fourteen nominees submitted by each society.

One of the most important features of the State law is that the Regents may accept licenses from other State Boards of medical examiners maintaining an equal standard, without further examination. The general adoption of this comity would make the reformation of medical practice much more national in character; and it would seem to be the feasible extension of an existing principle, for in all States having such laws, medical officers of the army, navy, and marine hospital service are exempted from such examinations, those of the government being accepted as evidence of their professional competency.

I am indebted to the courtesy of Ralph W. Thomas, the law and medical examiner for the University, for the information that since the law has gone into effect there have been eighty-seven applicants for admission to the examination, of whom eighteen were rejected because they failed to meet the requirements of preliminary education, and of three courses of medical lectures in three different years. He states that in New York it is preferable "to require a high standard of education before admission to the medical examinations, and then a fair test of the candidate's ability to practise medicine by the examination, rather than a low and imperfect preliminary and medical standard of education and an unduly severe medical examination."

The public, as well as the medical profession, has been confronted for years by an increasing number of medical colleges, offering nearly every inducement excepting more extended and thorough teaching to the matriculants. The consequence has been that the value of the degree of Doctor of Medicine has been lessened, and, most important, the public has been subjected to not inconsider-

able risks from the exercise of their vocation by poorly qualified practitioners. To recognize the existence of an evil suggests a remedy, and the State has as much right to prescribe the requirements necessary to practise medicine, as it has those to practise law, or those to pursue a vocation that may endanger the health or welfare of its citizens.

Examinations do not necessarily furnish evidence that the successful candidate can practically apply his knowledge. But the chances are greater that one possessing knowledge will successfully meet an emergency than that a partially informed person will do so.

It does not seem that the law of New York exercises any invidious distinction; nor could any of its provisions be omitted without weakening its force.

The application is satisfactory to the public and the profession, and there is every indication that it is accepted, as is sunshine or any other salutary feature of daily life.

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Medicine for the Hair.—To brush and brush and still to brush is the best medicine for the hair, remembering always that it is the hair and not the scalp which is to receive this treatment, writes Mrs. Mallon in the July *Ladies' Home Journal.* Upon the brush used depends a great deal. In the first place, it must be immaculately clean, and one's brushes should be washed as religiously as is one's face. The comb should be coarse, so that it will disentangle the hair if it is snarled, but if the hair is well brushed the comb really is of very little use. A fine comb is never advised. The brush should have long, soft bristles that go through the hair, taking with them every particle of dust and leaving behind them a glow that is beautiful.

To Wash Silk Undergarments.—To three gallons of warm water add three tablespoonfuls of household ammonia, writes Mrs. Parloa in her valuable department, "All Around the House," in the August *Ladies' Home Journal.* Let the silk garments soak in this for twenty minutes, then rub soap on the parts which are the most

badly soiled, and wash the articles with the hands. Never rub them on a board. Rinse in two waters, wring dry, and hang on the line. When nearly dry, take in and fold, and, if possible, iron within a few hours. Never let an iron come in contact with the silk. Lay a piece of cloth over the fabric, and iron on that.

The Medical and Surgical Register of the United States.—R. L. Polk & Co., Detroit, Mich., have now in course of compilation the third edition of this valuable publication. The Medical and Surgical Register has become a standard work, and occupies its field exclusively; it gives a complete record of the physicians of the United States, colleges and date of graduation, besides much other valuable information of interest to the profession. It is the only work that has ever made the attempt to record the physicians of the United States according to the medical college training each individual has received, and is remarkably free from the mistakes inseparably connected with the preparation of such a volume. The work is worthy the support of the profession, and we trust that every physician will respond promptly to the request of the publishers for data which will aid materially the compilation of the work.—*Medical Fortnightly.*

Woman's Russet Shoe.—Fashion has decreed that soft, undressed leather shoes in the natural russet shade may be worn all the day long, unless, indeed, one is gotten up very gorgeously for some special occasion, writes Mrs. Mallon in the August *Ladies' Home Journal.* I cannot recommend a white shoe, for even the foot of a Cinderella looks large and ill-shaped in it. For wear with an all-white costume, nothing is so pretty as a black patent leather shoe, fitting one well and being sufficiently large so that the foot is not forced into the narrow, pointed toe.

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Notice to Contributors.—We are glad to receive contributions from every one who knows anything of interest to the profession. Articles designed for publication in the Journal should be handed in before the first day of the month. The Editors are not responsible for the views or opinions of contributors. All communications should be addressed to the Managing Editor, 284 Franklin St., Buffalo, N. Y.

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THE BEHAVIOR OF TENDON REFLEXES IN HEALTH AND DISEASE.

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If an isolated muscle in the animal body receive an impulse from the higher nerve centers, it will shorten, and cause some change of position of its movable insertion. This is termed muscular contraction, and is influenced by the will or desire of the individual, and hence we speak of it as a voluntary act. The muscle thus subjected is a voluntary muscle, and the work accomplished is the function of that muscle. Now, if that muscle be removed from its bony attachments, stretched between two supports, one movable and one fixed, and subjected to the action of an irritant, it will likewise contract, and its movable insertion will change position as in the living body. This is termed muscular irritability, and is independent of the will or volition of the individual, hence involuntary. This irritability, sometimes designated as myotatic, is the foundation or starting-point of tendon, or, better, muscular reflexes. The same involuntary contraction will be produced if the nerve be subjected to the same influences as was the muscle. The irritant or stimulus may be mechanical, chemical, thermal, or electrical. Tersely stated, a reflex is the contraction of a muscle independent of the will, produced by the action of a stimulus upon its fibers or its nerve fibers. The mechanism of the reflexes which we are about to study, although categorically the same, is somewhat more complex and complicated.

Historical.—The study of the reflexes is an old one, and has attracted the attention of medical minds for centuries. The reflex action of the pupils to light was known to Galen. Descartes was acquainted with the reflex phenomena, but could not account for their production. In fact, in early times the whole subject was classed as pertaining to the sympathetic system.

Haller, the father of German physiology, found that irritation of some tissues caused sensation, and that of others caused movement or contraction.

Swammerdam (1637–1680) noticed the reflex movements of sleeping animals and men when the skin was gently tickled.

Willis, a student of Descartes, likened the reflex process to that of reflected sound in echo, but differed from Descartes in believing the periphery, as well as the brain, the seat of the reflex process.

Whytt (1714–1766) seemed to have a clearer conception of this phenomenon, for he wrote as follows: A certain power or influence lodged in the brain, spinal marrow, and nerves, is either the immediate cause of contraction of the muscles of animals, or, at least, necessary to it.

Unger (1727–1799) pointed out more clearly than had been done before, the path of sensory impulses from the periphery to the brain.

Prochaska's (1749–1820) idea of reflex action was as follows: External impressions made on sensitive nerves are propagated with great velocity to their origin, where, when they have arrived, are reflected—and pass into certain and corresponding motor-nerves, which, propagated to muscles, excite certain and determinate movements.

Bell, in demonstrating that the posterior roots of the spinal cord are sensory and the anterior motor, made the most important discovery in reflex action that had been made up to his time (1811). In 1809, Walker, a Scotch anatomist, proved the converse of Bell's law, viz., that anterior roots are sensory and the posterior motor.

Magendie (1783–1855) made the same discovery Bell did, and claimed priority. This claim is still held by many of the French scientists. Müller (1834) established Bell's law in Germany, and between Bell, Magendie, and Müller, the anatomical elements concerned in reflex action were made known, viz., a centripetal and a centrifugal nerve, with their portion of the spinal cord.

The first to elaborate a mechanical theory of reflex action was Marshall Hall (1790–1857). Besides the central system and the ganglionic, he assumed a third, the true spinal system, or an excito-motor system.

Pflüger, in 1855, formulated his well-known laws of reflex action.

Lotze carried the theory of Marshall Hall still higher, and perfected it.

The clinical importance of tendon reflex action was unknown, however, until the latter part of the present century. In 1858, Brown-Séquard first described ankle-clonus as occurring in the dog and guinea pig. The importance and weight which this observer lent the subject induced Vulpian and Charcot to make observations on their patients at the Salpêtrière, Paris (1866). They called particular attention to the diagnostic importance of ankle-clonus in diseases of the spinal cord. Since then, numerous contributions have emanated from the same source, and the Salpêtrière has become the center of modern neurological research. The German school was not long, however, in grasping the significance of this work. Westphal, in his studies on locomotor ataxia at the Charitè, Berlin, first discovered the absence of the patellar reflex in this disease (1874). Westphal's symptom, so-called, has passed into history. Contemporaneously with Westphal, but yet independent, appeared Erb, of Heidelberg, who began the study of the mechanism of tendon reflex, and its behavior in the various affections of the brain and cord. An army of workers, scattered throughout the civilized world, has been engaged since then trying to unravel the true nature and full significance of this strange phenomenon.

The scientific study of this phenomenon dates from the discoveries of Westphal and Erb in 1874, and the tendon reflex is now recognized as an important diagnostic factor in the armamentarium of nervous diseases.

In order that our study shall not be too far-reaching, I will limit myself to the consideration of the tendon reflexes only. The ones generally examined are the patellar, tendo Achillis, biceps, and triceps. The patellar and Achillis tendons will claim most of our attention.

Mechanism.—The theories regarding the mechanism of tendon reflexes have been various. The concurrence of the sensory and motor nerves in their production has long been recognized; the point of transfer has been the bone of contention. Descartes held that the shifting of the impulse from sensory to motor occurred in the pineal gland. The ganglia on the posterior spinal roots were, until very recently, regarded as the reflex center, but pathology has eliminated this theory from the probabilities. Much light was thrown upon the subject when, through the Hales-Whytt experiments, the spinal cord was found to be the true reflex center. Today the one theory accepted, and the one followed out by facts,

is the following: Tapping the patellar tendon acts as a stimulus to the sensory nerve filaments in the tendon and muscle. This stimulus is carried centripetally by the afferent sensory nerves through the posterior spinal roots to the posterior horns of gray matter, thence conveyed through the posterior white columns to the anterior horns. In all probability, the transfer from sensory to motor conduction occurs in the large multipolar ganglion cells of the anterior horns.[1] The impulse is now carried centrifugally through the anterior spinal roots to the efferent motor nerve, and contraction of the quadriceps femoris muscle follows. This is called the reflex arc, and upon the integrity of this arc depends the consummation of the reflex. But this is not all: the brain has always been regarded as the great inhibitory center, and in the mechanism of reflex action the inhibition of the brain plays an important part. At the instigation of Weir Mitchell, Reichert of Philadelphia made experiments upon this point, which are here briefly summarized.

The spinal cords of twelve dogs were cut, either in the upper dorsal or lower cervical region, thus destroying all inhibitory fibers. The toes of one side, and the upper segment of the cord severed from the brain, were then subjected to the action of powerful stimuli, and yet, in all cases, without exception, there was no evidence that the knee-jerk was in any way affected by these excitants. Other experiments on the same point might be cited, but the conclusions arrived at are all the same; namely, that the exaggeration or reënforcement of the tendon reflexes is dependent upon some peculiar influence exerted by the cerebral centers. There are, probably, no special routes for these inhibitory fibers in passing to and from the brain; they follow the same paths as do the motor and sensory impulses. The point of transfer in the brain is, undoubtedly, the ganglion cells of the cortex corresponding to the motor center of the muscles in the anterior frontal convolution. Thus amended, the reflex arc of the patellar tendon would be: afferent sensory nerve to cord, through the posterior horn to the posterior white column. Here occurs a division, one impulse follows the sensory path to the brain, passes through the center of sensation to the motor center of the quadriceps femoris muscle, thence centrifugally through the internal capsule down the anterior and lateral pyramidal tracts to the efferent motor nerve. The

1. The substance of Rolando in the posterior horns is regarded by many as the point of transfer.

other division follows the course traced out a few moments ago. This represents, perhaps, the present status of our knowledge regarding the mechanism of tendon reflex action.

Reflex Centers.— The different tendon reflexes must each have a separate and distinct center in the cord as well as in the brain. By experimentation and traumatism to certain regions of the cord, whereby these centers have been destroyed, their exact localities have been determined. According to Westphal, Starr, Pick, and others, the spinal center governing the patellar tendon reflex is placed at the level of the second and third lumbar nerves. The center presiding over the tendo Achillis reflex (ankle clonus is placed at the level of the first to third sacral nerves, or lower part of the lumbar enlargement. According to Starr, the segment of the cord presiding over the triceps and biceps tendon reflexes is at the level of the sixth cervical nerve. The extensors of the hand are also located at the sixth cervical.

Time.— Waller, of England, has lately made an extended study on the physiological mechanism of tendon reflexes, and found that the time which elapsed in the production of the patellar reflex was 0.02–0.04, or $\frac{1}{50}$– $\frac{1}{25}$ of a second. It was immaterial whether he applied a stimulus to the patellar tendon or to the rectus femoris muscle, the time between the irritation and the contraction of the muscle, in both cases, remained the same. Gowers found the interval of time between the irritation and contraction to be $\frac{1}{30}$ of a second. Burckhardt found it to be 0.039, or $\frac{1}{25}$ of a second; Tschirjew, .032–.034, or about $\frac{1}{30}$ of a second; Brissaud, .04, or $\frac{1}{25}$ of a second; Eulenburg, .03 or $\frac{1}{33}$ of a second. The slight variation in the figures of the different observers must show that the experiments were most carefully carried out, and that the absolute interval of time for the production of the patellar tendon reflex to be not far from $\frac{1}{30}$ of a second.

Nature of Tendon Reflex Action.— Upon this point there exists diversity of opinion. Is the tendon reflex, so-called, a direct muscular contraction; secondly, a reflex, pure and simple, of the tendon; or, thirdly, a direct muscular contraction with the *conditio sine qua non* of the integrity of the reflex arc? Waller, basing his opinion on the experiments just mentioned, holds to the latter proposition. Erb champions the second,—that the contraction is a true reflex action, the stimulus being the excitation of the nerves in the tendon. Westphal held the third proposition to be the correct one, and believed that the contractions of the muscle do not

necessarily depend on a simple reflex act from the tendons. The French school generally pin their faith in the reflex theory. Gowers, from the experiments made by Tschirjew, Burckhardt, and others, believes that the tendon reflexes are the product of reflex irritability, accompanied by local stimulation ; in other words, that the phenomenon is due to muscle reflex irritability which has nothing to do with the tendons. This muscle irritability is nothing more than muscle tone, and is dependent on the spinal cord. Summing up, it would seem that the majority of observers uphold the direct muscular contraction theory dependent upon the functional integrity of the reflex arc. If this theory be the correct one, then the term " tendon reflex " is a misnomer, and we are obliged to look about for a better term. Gowers has already suggested tendon muscular phenomena, or myotatic contractions. The term tendon reflex has, however, become so rooted in our nomenclature, that nothing short of a revolution can efface it from our minds and text-books.

We are now in a position to judge of the importance of the tendon reflex as a diagnostic factor. Have we in it an agent which will give us positive evidence of disease or injury to the deeper nerve centers, or is it only of value in clinical histories, because of its universal adaptation ? It may be said that, inasmuch as there exists difference of opinion as to its nature, there must exist discrepancies as to the condition of the several organs which produce it. This fear is groundless. In the majority of cases, in experienced hands, the examination of the tendon reflexes gives us information concerning afferent, efferent nerves, and cord, which would be difficult to obtain otherwise. Therefore, if there is virtue in this phenomenon, let us turn from the theoretical and problematical to the practical and actual, and determine the behavior of these reflexes in health and disease.

Methods of Examination.— In order that the reflex act shall give us a true index of the condition of the reflex arc, three things are necessary :

First—The mind of the patient must be neutral or passive,—at least must not be upon the proceedings which are taking place around him. We shall see, later on, that states or conditions of the mind influence the degree of reaction, and, hence, this factor must be eliminated while making our examination.

Second—The muscle and its tendon must be in a state of passive tension. It should not be flaccid nor taut. To obtain this desired condition, the limb should not be in an extreme

flexed or extended position, but midway between extension and flexion.

Third—The force of the blow should be uniform, and occur at proper intervals. In examining the two sides, care must be taken to tap each tendon uniformly, if accurate results are desired.

Bearing these three points in mind, we will proceed to examine the patellar tendon.

The patient, unless otherwise reported, is to be seated in a chair, with his legs flexed at right angles upon the thigh. The leg of the side to be examined is crossed over the knee of the other leg, and the patient requested to let it hang as if dead. The operator then taps the patellar tendon, either with a percussion hammer, with the edge of his hand, or the tips of his fingers. There results contraction of the quadriceps femoris muscle, and the leg is jerked forwards. Care must be taken to tap the tendon about midway between its patellar and tibial insertions, and to accomplish this the leg should be bared, and the desired spot determined beforehand by palpation. I sometimes grasp the tendon lightly between the thumb and forefinger, so as to be sure that the blow falls on the right spot. Tapping the inner edge of the ligamentum patella will sometimes call forth a reaction when otherwise it fails to respond. This is the most universal method of examining the patellar tendon, but others are in vogue which have special indications for their employment. The operator may lift the leg from the floor, allowing it to hang over his arm, his hand resting upon the other knee of the patient. The tendon is then tapped. This method prevents the patient from exercising active tension over the muscles of the leg, and permits it to hang lifeless. The same ends are obtained if he sits on a table with the legs dangling from the side. Sometimes I have overcome this active tension by bringing the leg nearly to complete extension, and allowing the heel to rest on the floor. Tapping the tendon will cause the extension of the foot on the leg, the heel acting as a fulcrum. Another way is to grasp the foot with the hand, and raising the leg from the floor. By flexing the foot on the leg, a certain degree of tonus will be obtained, besides overcoming active tension. These two methods are especially applicable in aged and portly individuals, also when the patient is bedridden. Several methods are in practice which have for their object the distraction of the patient's mind while the tendons are being examined. With one leg crossed over the other, as in the first method, the patient is given examples to solve

in mental arithmetic. While occupied with a problem, the tendon is tapped and the reaction noted. Another method, which has become famous, is Jendrassik's. The patient assumes the same position as in the foregoing, and is commanded to clinch his hands and pull them forcibly, while the physician taps the tendon. In cases where the reaction seemed absent altogether, or but slightly present, it can be elicited with some force. If no response is obtained, it can be assumed that the tendon reflex is abolished. If the patient is bedridden, the leg may be raised slightly at the knee, then percussed—or the hand may be applied to the rectus femoris, just above the patella, and examined. Erb has succeeded in obtaining a patellar clonus by forcibly pushing the patella downwards and holding it, thus making the rectus tense. The clonus will continue as long as tension is maintained. These are some of the more important ways of eliciting the phenomenon, designated knee-jerk by Gowers, knee phenomenon by Westphal, and patellar tendon reflex by Erb. The degree of reaction varies in health and disease. Generally speaking, if absent, or if reënforced or exaggerated, some disturbance or pathological condition is present.

Ankle Clonus, Syn. Foot Clonus, Foot Phenomenon.—The ankle clonus is a safer and more trustworthy guide than the patellar reflex, since in health it is totally absent, and only present when there is some organic lesion present in the cord, or some functional irritation to the cord or brain. It is generally obtained by grasping the foot with the right hand, the left hand supporting the lifted leg. By forcibly flexing the foot on the leg, thus making the gastrocnemius tense, the foot will be thrown into a series of clonic contractions, averaging from five to ten per second. These movements will continue as long as the foot is flexed on the leg, or as long as the calf muscles are under increased tension, and are nothing more than a series of Achillis tendon reflexes. Instead of provoking this clonus, the foot may be flexed on the leg, and the tendo Achillis percussed.

To examine the triceps tendon, the forearm is held slightly flexed on the upper arm, and the tendon slightly percussed just above the olecranon process. It is sometimes very difficult to elicit any response, but in disease, with care and a percussion hammer, a sudden extension of the forearm can be obtained. To examine the biceps, hold the arm slightly flexed as before, and seek the biceps tendon just above the elbow joint; percuss slightly, and a sharp flexion of the forearm will follow. For the superficial and

deep flexors of the fingers, strike the tendons just centrad of the wrist joint. These arm reflexes are generally absent in health, and only present when there exist organic lesions in the central nervous system. Another muscular reflex sometimes sought for is the masseter. It is obtained by placing a lead pencil in the mouth, resting it upon the molar teeth. Strike the pencil near its emergence from the mouth, and a sharp quick upward movement of the inferior maxilla will take place. This reflex is only present, according to Charcot, in bulbar paralysis.

In all these cases, especially where the reflex is very weak or absent, we must be very careful not to mistake the movement of the limb, caused by the shock of the blow, for the reaction.

In order to study the clinical significance of the different reflexes in disease, we must know beforehand how they act in health, or when there is no lesion, organic or functional, of the various systems of the body which beget them.

In health, the patellar reflex is fickle, inconstant, capricious, dependent in great measure upon the whim or mental condition of the individual. No absolute rule can be laid down, since in no two persons does it act uniformly. If the necessary precautions are heeded, the reaction should be a determined resolute forward movement of the leg, describing, according to Ziehen, an arc of a circle of eleven to forty degrees, or, better, fifteen to thirty degrees. The behavior may be said to be "good-natured." It is, as a rule, always present in health, although exceptional cases are sometimes met with. Pelizaeus examined 2,403 school children, and found it present in every one. Jendrassik examined 1,000 persons, chiefly adults, and found it absent in only one case, and that was a case of diabetes, an affection in which the reflex is generally absent. Zenner, of Cincinnati, examined 1,672 individuals, and found it absent in five, two of whom were affected with locomotor ataxia, so that really in 1,670 healthy individuals it was absent in only three. It is sometimes very difficult to elicit this phenomenon in the very young and very old, and much care must be taken not to mistake the shock of the blow for a weakened tendon reflex. Lombard made some interesting studies on the patellar reflex in health, and came to the following conclusions: It varies with the time of day, being highest in the morning; is increased after each meal; is diminished by muscular or mental fatigue; is increased by mental activity; is influenced by the state of the weather, being increased by a fall of temperature and decreased by a rise; the emotions, as

joy, expectation, in short, whatever buoys up the spirits, increases, while sadness, sorrow, anger, hatred, or whatever depresses the mind, diminishes the activity of the reaction. Jendrassik's discovery, that the clinching of the hands while the reflexes were being examined, would increase it, led Mitchell and Lewis to make further investigations. They found that any decided movement on the part of the individual, or any sensation, if perceived simultaneously with the tapping of the tendon, would exaggerate the reflex. Also, that if a galvanic current were passed through the frontal lobes of the brain, the reflexes would be increased. Bowditch and Warren took up the thread of these experiments, and showed that the interval of time elapsing between the volitional movement of the individual and the tapping of the tendon became a factor in influencing the reflex. If that interval was 0.4 of a second or less, the reflex would be increased; if 1.7 seconds or more, the movement would exert no influence whatever.

Now, what does all this mean? Does it destroy all hope of employing this phenomenon as a symptom of disease, because in health it varies as the play of colors in a brilliant, or must we regard some of these variances as pathological, and the reflex as abnormal?

From our own studies we have found it almost universally present in health, or when the reflex arc is intact, hence it is but fair to conclude that its absence forebodes some disturbance in the course of this arc, and that disturbance means—disease. On the other hand it was found to vary in intensity, but when greatly exaggerated or reënforced, there was usually present some functional disturbance or heightened activity of the higher nerve centers. But allowing all possible chance for error, we will grant that an increased patellar reflex, if not too extreme, cannot *per se* be regarded as indicative of disease.

The ankle clonus gives us no chance whatever to doubt of its value as a diagnostic symptom. It is either present or absent, presents no variations, is independent of the whim or fancy, and signifies at all hours and under all circumstances, that a neuropathic lesion is present somewhere in the animal economy. It is pathognomonic of disease of the lateral pyramidal tracts, either occurring primarily or secondarily by a descending degeneration of these tracts as a result of some cerebral insult. It will not be found, though, when there exists at the same time some disturbance in its reflex arc. An increased patellar reflex, if coupled with ankle

clonus, becomes, then, an important diagnostic factor, and signifies some obstruction or irritation along the highway of nervous conduction.

The biceps and triceps tendon reflexes, likewise the flexors of the fingers and masseter, occur so rarely in health, that their presence augur disease.

To recapitulate, the normal patellar tendon reflex occupies middle ground, or may be designated good-natured; the ankle clonus, biceps and triceps tendon reflexes, are always absent.

Having observed these reflexes in health, we can now judge of their behavior in disease. The patellar reflex occupying a mean position in health, must swerve to the extremes, either markedly exaggerated, or abolished. Let us study, first, the exaggerated reflex. If the patellar tendon be but slightly percussed, the leg will fly up instantly in a snappy, threatening manner, defining an arc of a circle of thirty-five to seventy-five degrees. If the taps on the tendon follow each other in quick succession, the leg will be thrown into clonic contractions, gradually diminishing, until the leg is held in tonus. With a little experience, the difference between a normal and an abnormal reflex can be easily determined.

We have found that an exaggerated or snappy reflex occurs when there is loss of inhibitory action, and, secondly, when the nerve centers are in a state of over-stimulation or excitation.

Loss of inhibition results when there is either complete or partial obstruction of nerve impulses, coming or going from the spinal reflex center to the brain, or *vice versa*. It is consequent to organic disease of the cord, seated in or affecting in any way the anterior or lateral pyramidal tracts, and, secondly, to injuries of the cord cephalad of the reflex centers.

Over-stimulation and excitation of the nerve centers occur in functional neuroses and psychoses.

We find loss of inhibition in myelitis, where the white substance of the cord has undergone sclerotic change; in amyotrophic lateral sclerosis and spastic paraplegia, where a similar change has taken place in the pyramidal tracts; and in multiple sclerosis, where sclerotic patches are distributed throughout the white substance of the cord. The reflexes are likewise exaggerated in syringo- and hydro-myelia, where, on account of the distension of the intra-spinal cavities, pressure is exerted on the neighboring pyramidal tracts, and in many cases results in the new formation of connective tissue: In hematomyelia and hematorrhacis (or

spinal apoplexy), pachymeningitis hemorrhagica interna, and spinal tumors, owing to the pressure exerted on the cord by the escaping blood or new formation of tissue. In these affections, where pressure is the disturbing agent, the insult must be cephalad of the reflex centers, and not destroy the reflex arc. In pachymeningitis hypertrophica cervicalis, where we have an undue thickening and hypertrophy of the membranes, the cord is in great measure destroyed, and a descending degeneration of the pyramidal tracts follow.

In Brown-Sèquard's spinal paralysis we find the reflexes exaggerated on the side of the motor paralysis, because on this half of the cord there is loss of continuity, and, hence, the inhibitory fibers must necessarily be severed.

In arthritic muscular atrophies, where the wasting is due to some alteration in the nutrition of the ganglion cells of the cord, we find increased reflexes only in the limb whose joints have suffered injury.

We also find the reflexes reënforced in certain cerebral affections, as in cerebral apoplexy, cerebral embolism, and acute encephalitis. As a result, we have hemiplegia, with secondary degeneration of the pyramidal tracts. The increased reflexes pertain to that side corresponding with the motor paralysis. In hematomas of the dura mater, if seated over the motor centers in the brain, the reflexes on the opposite side of the body will be exaggerated. In chronic hydrocephalus and senile dementia the exaggeration is due to the long continued irritation and the slight organic changes which, of necessity, follow.

In all these cases of organic disease of the cord and brain, we generally find ankle clonus along with the exaggerated patellar tendon reflex.

Among the functional disturbances or neuroses we often meet the heightened patellar reflex, but less often the ankle clonus. Absolute reliance cannot be placed upon the reflex phenomena in these cases, although many times their behavior will aid us in distinguishing between organic and functional disease. In hysteria we find that the patellar reflex is greatly exaggerated, especially in those individuals offering same paralysis, contracture, atrophy, or after convulsions.

In epilepsy the same condition is observed in sixty per cent. of all cases, especially after an attack. During the intervals the reflexes approach their normal activity. Oliver found that the

knee-jerk is sometimes present, and sometimes absent, but the ankle clonus is always present. Beevor found that after seventy attacks the knee-jerk increased and clonus present thirty-eight times, knee-jerk diminished and clonus absent, twenty-four times.

In neurasthenia, paramyoclonus, and tetanus, the exaggerated reflexes become an important diagnostic factor, especially in the two latter affections, where they are present to an excessive degree. Simply touching the tendons will throw the whole body into clonic spasms.

In the various psychoses, as paranoia, mania, and the affective forms, we meet the exaggerated reflexes, portraying somewhat the state of the cerebral centers.

Lastly, in some acute infectious processes, as in cholera, typhoid fever, dysentery, etc., the reflexes will be found at times to be increased.

Abolition of the Reflexes.—From our study of the mechanism of reflex action, we learnt that the reflexes are abolished whenever the reflex arc is impaired or broken; in other words, when there is present some organic lesion in the afferent or efferent nerves or cord, particularly in the posterior white columns and multipolar ganglion cells of the anterior horns. No response is obtainable in these cases, even with Jendrassik's method, and the leg hangs limp and lifeless, the muscles inert, possessing no myotatic irritability. The reflex may be termed disgusted, and the arc may be likened to a broken circuit.

We find this state of affairs in the simple neuritic processes, in those forms due to toxic agents, as alcohol and arsenic, in those of endemic origin, as beri-beri, and in those forms of neuritis occurring concomitant with infective processes, as in diphtheritic paralysis. In all these varieties the reflex arc is destroyed by virtue of the non-conductibility of the afferent and efferent nerves.

Among the diseases of the spinal cord we find the reflexes most generally absent in locomotor ataxia. Here there is a sclerotic tissue development in the posterior white columns, and the arc is consequently destroyed. In poliomyelitis anterior, and progressive muscular atrophies of spinal origin, as the Duchenne-Aran and Charcot-Tooth types, the reflex arc is likewise tampered with on account of the destruction of the multipolar ganglion cells of the anterior horns. In Friedreich's disease, or hereditary ataxia, we meet obstruction, owing to sclerotic changes in the posterior and lateral

white columns. In chorea molle or paralytic chorea, chronic ergotism and diabetes, the reflexes are unaccountably absent. In trauma or injury to the cord at the seat of the reflex, whereby the centers are destroyed, the reflex will, of course, be absent. In all these cases abolition of the reflexes is due to some obstacle in the path of the reflex arc.

There are also some diseases in which the reflexes vary, in some stages present and in some absent. This is true of spinal and cerebral meningitis. In the first stage, stage of irritation, the reflexes are increased, while in the second, stage of paralysis, they are absent.

In progressive paralysis some observers have found the reflexes abolished, and some have found them increased. Ziehen found them absent in 22 per cent., exaggerated in 32 per cent. Zenner found them absent in nearly every case examined.

In idiocy the reflexes also vary. Wildermuth found exaggeration in 16 per cent., abolition in 23.5 per cent. Ziehen found them reënforced in over 50.

Exaggeration of Tendon Reflexes.

- Organic Disease.
  - Spinal Cord.
    1. Myelitis.
    2. Amyotrophic lateral sclerosis.
    3. Paraplegia spastica.
    4. Multiple sclerosis.
    5. Syringomyelia and hydromyelia.
    6. Hematomyelia and hematorrhacis.
    7. Spinal tumors.
    8. Pachymeningitis hemorrhagica interna.
    9. Pachymeningitis cervicalis hypertrophica.
    10. Brown-Séquard's spinal paralysis
    11. Arthritic muscular atrophies.
  - Brain
    1. Hemiplegia
       - Cerebral apoplexy.
       - Cerebral embolism, thrombosis.
       - Acute encephalitis.
    2. Hematoma.
    3. Hydrocephalus.
    4. Senile dementia.
- Functional Disease.
  1. Hysteria.
  2. Epilepsy.
  3. Neurasthenia.
  4. Paramyoclonus.
  5. Tetanus.
  6. Psychoses.
  7. Infectious processes.

Abolition of Tendon Reflexes.	1.	Neuritis. { Simple. Toxic. Endemic. Infective.
	2.	Locomotor ataxia.
	3.	Poliomyelitis anterior.
	4.	Spinal muscular atrophies.
	5.	Hereditary ataxia (Friedreich).
	6.	Chorea molle.
	7.	Chronic ergotism.
	8.	Diabetes mellitus.
	9.	Traumatism.
Abolition and Exaggeration.	1.	Meningitis { Spinal. Cerebral.
	2.	Dementia paralytica.
	3.	Idiocy.

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ELECTRICITY IN THE DIAGNOSIS OF DISEASES OF THE NERVOUS SYSTEM.

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The value of electricity to the neurologist, as an agent in diagnosis, is, I believe, little known or understood outside of the ranks of specialists. It would seem, therefore, that a clear and explicit statement of the points and facts of electro-diagnosis would prove valuable to the general medical practitioner. We use electricity to obtain a positive symptom in tetany, exophthalmic goitre, and

hysteria; to test all of the five senses — taste, smell, sight, hearing, and feeling; to test the ciliospinal reaction; to determine the situation of a lesion in a facial neuralgia; to localize centers for brain and spine surgery; and finally, and most commonly, to distinguish paralyses due to lesions in the spinomuscular segment of the motor tract.

Tetany.—A positive symptom of tetany is the increased reaction of the muscles to the galvanic current. Their electrical irritability is so astonishingly great, that a current from two cells, or sometimes even from one cell, is sufficient to cause contractions in the muscles. This is one of the cardinal symptoms, therefore, of tetany.

Basedow's Disease or Exophthalmic Goitre.—In this disease the resistance to the galvanic current is greatly diminished, probably owing to the hyperidrosis and superficial capillary dilatation generally manifested. One sponge electrode being placed on the chest and another on the back, the current is allowed to pass until the galvanometer registers, say, five or ten milliamperes. Then a wire-coil rheostat is substituted for the human body, and coil after coil is introduced into the circuit until the number of milliamperes corresponds with that previously obtained. Then one reads off the number of ohms marked upon the rheostat, which gives us, naturally, the ohms resistance of the human body. The normal average resistance of the human body may be given as from 2,000 to 4,000 ohms. In exophthalmic goitre it is reduced, in a majority of cases, to between 1,000 and 2,000 ohms, or about half. This reduction of resistance is a positive symptom when present; but it has no negative value if not present.

Hysteria.—Vigouroux has recently pointed out that the resistance in hysteria is increased above the average normal resistance. In hysterical hemianesthesia the resistance on the anesthetic side is greater than on the opposite side.

TESTING THE FIVE SENSES.

Taste.—This sense may be examined for the galvanic taste by applying the small wire ends of the rheophores closely approximated to different parts of the tongue. A current from one or two cells suffices. A sharp metallic taste, known as the "galvanic taste," is produced. A Steiner electrode, such as is used to stimulate the cortex of the brain, may be also used for this purpose. The "galvanic taste" is absent on the front of the tongue in

injury to the chorda tympani, and on the back of the tongue in lesions of the glossopharyngeal nerve.[1]

Smell.—The sense of smell may be tested by wrapping the end of one rheophore well in absorbent cotton, saturated with water, and inserting it into the nostril to be examined. The other pole may be in the hand. One to five cells are used. A peculiar phosphoric odor is perceived if the olfactory nerve is intact.

Sight.—Whenever electrodes are applied to the head, especially in the neighborhood of the eyes, flashes of light are perceived when the current is made or broken. These are not observed in total blindness. A mild galvanic current is employed. It is a delicate test of the condition of the retina, sometimes showing faint reactions when light has no apparent stimulus.

Hearing.— If one sponge electrode be placed over the ear and one on the nape of the neck, a sound will be heard, usually of a ringing character, a clang, when the current is made. The loudest sound is made on closure of the cathode. There is also a weak sound with the opening of the anode. There is a galvanic hyperesthesia in many cases of central disease. This is especially true in insanity with auditory hallucinations. In certain cases there is a change of the formula — a sound heard with the cathodal opening and anodal closure, or even a reversion of the formula.

Cutaneous Anesthesia.—With the wire brush (Fig. 1) and a mild faradic current we may demarcate areas of anesthesia of tactile and pain senses.

FIG. I.

CILIO-SPINAL PUPILLARY REACTION.

By stimulating the skin of the neck with the faradic brush, we, under normal conditions, dilate the pupil on the same side by the reflex through the cilio-spinal center (in fourth cervical to second dorsal segments of spinal cord). In destruction of this center, for instance, in Klumpke's paralysis, or in lesion of any part of the reflex path, this reaction is lost.

1. See author's paper, Disturbance of the Sense of Taste after Amputation of the Tongue, *N. Y. Medical Record*, August 3, 1889.

TO DETERMINE WHETHER SEVERE NEURALGIA IN SUPERFICIAL NERVES IS PERIPHERAL OR CENTRAL.

Cocaine Cataphoresis.— A ten to twenty per cent. solution of cocaine, on a cataphoric anode, applied with a continuous current to a painful nerve, such as a branch of the trigeminal, will, in a few minutes, anesthetize the nerve and relieve the pain, if the lesion is beneath or peripheral to the electrode. Thus, an intense infra-orbital neuralgia, if not relieved by cocaine cataphoresis, is probably of central origin, or, perhaps, hysterical in nature, and neurectomy is contra-indicated.[1]

IN LOCALIZING CORTICAL CENTERS IN BRAIN SURGERY.

We have here a very important use for the faradic current, with a Steiner electrode; for, in locating the parts we want to excise, it is essential that we orient ourselves as to the parts we have trephined over. Fortunately, we are able, in this way, to recognize our surroundings before opening the dura mater, for I have stimulated the cortical centers through the dura, in experiments upon a monkey, at the Laboratory of the College of Physicians and Surgeons, and also upon man, in brain operations undertaken at Charity Hospital. It would be of still greater advantage were we able to stimulate centers through the skull, underneath the scalp. I experimented upon some animals, at the Edison Laboratory, this Summer, in conjunction with Mr. Kennelly, with a variety of currents, to determine this point. We were unable to excite cortical centers through the skull bones after removal of the scalp, but this is not owing to the bone being a bad conductor, as it is generally supposed to be, but because, as we were able definitely to decide, the skull bones are such good conductors that currents are short-circuited and do not reach the brain substance.

IN LOCALIZING SPINAL CENTERS IN SPINAL SURGERY.

The Steiner electrode, with mild faradic currents, may be employed with advantage here also, in stimulating and thus local-

1. See the following articles by the author: Electric Cataphoresis as a Therapeutic Measure, *N. Y. Medical Journal*, April 2, 1889; A System of Exact Dosage in the Cataphoretic Use of Drugs, *N. Y. Medical Journal*, November 15, 1890; A Further Study of Anodal Diffusion as a Therapeutic Agent, *N. Y. Medical Record*, January 31, 1891; The Introduction of Drugs into the Body by Electricity, *Philadelphia Medical Times and Register*, March 21, 1891.

izing and recognizing spinal nerve-roots and segments, during operations upon the vertebral canal.

IN DISTINGUISHING PERIPHERAL PARALYSES.

Probably, however, the most useful application of electricity, from a diagnostic point of view, is to differentiate paralyses due to a lesion of the spino-muscular portion of the motor tract from paralyses due to lesions in the central nervous system, affecting the cortico-spinal portion of the motor tract.

For this purpose, both the galvanic and faradic currents are generally employed, but practically it is usually sufficient to use the faradic current alone.

Normal Reactions in Nerves and Muscles.—When any current is suddenly applied to the motor point of a nerve or muscle, contraction takes place in the muscle. This is true under normal conditions, and it is also true in any paralysis due to lesion in any part of the spinal cord or brain affecting cortico-spinal motor fibers.

To obtain these reactions, a flat sponge electrode (Fig. 2) is placed

FIG. 2.

upon any indifferent part of the body, say the back, or chest, or in the hand. Another electrode, with an interrupting handle (Figs. 3

FIG. 3.

and 4) is then applied to a motor point. In using the faradic current we need make no distinction between the poles, whether they are negative or positive. The results are precisely the same. The fact is, that with the primary current the cathodal contractions are a trifle more powerful than the anodal ; while with the secondary there is absolutely no difference, because the secondary current is an alter-

nating current, each pole being first positive, then negative, with the rapid to-and-fro movement of the electric waves.

Fig. 4.

But when the galvanic current is used, there is a difference in the amplitude of contraction produced by the two poles. Hence, it is important, indeed absolutely necessary, in employing this current, always to distinguish the positive pole or anode from the negative pole or cathode. In normal muscles, the cathode produces a stronger contraction than the anode. Having made our interrupting handle on the motor point the cathode, we increase the number of galvanic cells until our closures of the circuit produce a slight contraction. This is called the cathodal closure contraction (CCC). Now, if the current-reverser be moved, so that the interrupting handle is made the anode, it will be found that the current is not yet strong enough to produce an anodal closure contraction (AnCC), but the muscle may contract just as you open the circuit, making an anodal opening contraction (AnOC). A stronger current gives us the anodal closure contraction, and with a very strong current we may obtain with the cathode also an opening contraction (COC). Thus, beginning with a weak current, and gradually increasing it, we note first a CCC, then in addition AnOC, later AnCC also, and finally, with very strong currents, we have contractions with either pole both upon opening and closing the circuit. It is not necessary, for our purposes, to pay attention to the opening contractions. The "normal formula" for us, practically, is that the cathodal closure contraction is stronger than the anodal closure contraction (CCC>AnCC).

Reaction of Degeneration.—Whenever there is degeneration of a nerve and the muscles supplied by it, their reactions to electricity are changed. If the degeneration is very slight, there is still reaction, but usually less than will be found in the normal nerves and muscles of the patient examined, so that we speak of a diminished electrical reaction. This is called a quantitative or modal change, and is not of the greatest value for diagnosis. But where

degeneration is marked and typical, there is no reaction at all, with either the faradic or galvanic current, when the interrupting handle is placed over the *motor nerve*. Now, when the electrode is applied to the motor point of each suspected *muscle*, it is found not to contract at all to faradism, no matter how strong the current employed. For diagnosis this would be sufficient. Finding that the muscle does not respond to faradism, we know that the reaction of degeneration is present. Still, if we desire to try also the effects of the galvanic current, we find that the muscle does contract with the galvanic current in spite of not doing so with the faradic, only there is a reversion of the normal formula, for now the anodal closure contraction is equal to or markedly stronger than the cathodal closure contraction (AnCC > CCC).

In a nutshell, then, we may describe the complete reaction of degeneration as follows :

NORMAL MUSCLE.	DEGENERATED MUSCLE.
Contracts with faradism.	Does not contract with faradism.
Contracts with galvanism.	Contracts with galvanism.
(CCC > AnCC.)	(AnCC > CCC.)

But, now, what do we mean by, and where do we find, degeneration ? In order to clearly understand this we must describe, briefly, the motor tract. This tract extends from the motor area of the cortex to the muscles, but it has two segments. The one, called the cerebro-spinal segment, consists of the motor cells in the cortex and the long fibers going down from it through the brain and spinal cord into the cells of the anterior horns of the cord. The other segment, the spino-muscular, consists of the large nutritive ganglion cells in the anterior horns of the cord and the fibers passing out therefrom to end in the muscles. This spino-muscular segment governs the nutrition of the muscles, while the upper portion, or cortico-spinal, conveys chiefly voluntary motor impulses. So, if there is a lesion in the latter, the electrical reactions are unchanged. It is only in lesions of the spino-muscular segment that we have nutritive changes, or degeneration, in the nerves and muscles, and resulting therefrom the electrical reaction of degeneration. The value of electricity in the diagnoses of certain paralyses, therefore, lies in its ability to distinguish for us these two kinds, to tell us whether the lesion is in the cortico-spinal or spino-muscular segment of the motor tract.

Suppose we are called to a case of paralysis. We take with us a small faradic battery (the small one made by J. C. Vetter &

Co. (Fig. 6) is one of the best), or such a one as I have recently had Stammers, of 1424 Broadway, make for me (the smallest battery

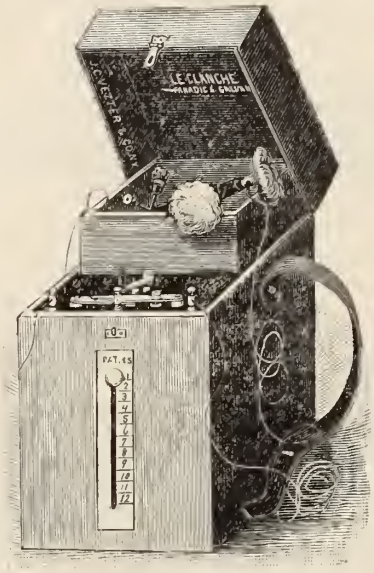

Fig. 6.

known, I believe, for the purpose, Fig. 5, $5\frac{3}{4} \times 2\frac{1}{2} \times 2\frac{1}{2}$ inches), and

Fig. 5.

having tested the reaction of the muscles in the paralyzed members, we consult the following table :

FARADIC REACTION PRESENT.	NO FARADIC REACTION.
Hemiplegia, or	Poliomyelitis.
Monoplegia from any cerebral cause, or	Amyotrophic lateral sclerosis.
Lateral sclerosis.	Progressive muscular atrophy.
	Multiple neuritis.
	Lead palsy.
	Arsenical neuritis.
	Alcoholic neuritis.
	Traumatism to nerves.
(The lesion is in the cortico-spinal segment of the motor tract.)	(The lesion is in the spino-muscular segment of the motor tract.)

1 *N. Y. Medical Journal*, August 20, 1892.

Exceptions.— Reactions to faradism present in joint atrophies and in milder forms and earliest stages of some other peripheral palsies (such as facial and musculo-spiral at times). Also present in pseudo-hypertrophic paralysis as long as there are sufficient fibers left in the muscle to contract.

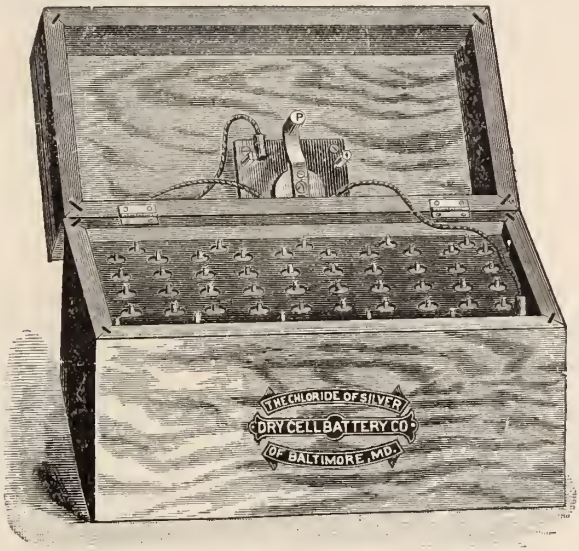

Fig. 7.

In making these tests, always compare the symmetrical halves of the body, and take good note of the exceptions mentioned in the table. The best portable galvanic battery is the chloride of silver dry cell, Fig. 7.

201 West Fifty-fourth Street, New York.

THE WEIGHT OF THE BODY IN ITS RELATION TO THE PATHOLOGY AND TREATMENT OF CLUB-FOOT.[1]

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I desire to present a few thoughts, of an extremely practical kind, relating to the treatment of talipes equino-varus. Beginning with congenital club-foot, it is well to bear in mind that there is a vast difference between a child recumbent and a child walking. While the child is in arms the case is yet free from the complications and difficulties caused by the falling of the weight of the body on the

1. Read before the American Orthopedic Association, New York, September 21, 1892.

deformed foot. These twelve months, more or less, are the most important year in the history of the case, because, in this period, the foot is to be changed so that, when the child begins to walk, the use of a slight walking-brace, exerting only a moderate degree of force, will convert the weight of the body from a deforming to a correcting agent. During these months of recumbency, with the weight of the body out of the way, with all the tissues soft and

Fig. 1.

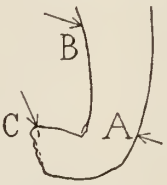

Fig. 2.

formative, and the foot more than doubling in size with the growth of the child, there is every reason to expect to succeed in what we undertake, provided time enough be given to the case, and faithful attention to the details.

The apparatus which I have conveniently used to effect this reduction, before the child learns to stand, is a simple retentive splint, which acts as a lever, making pressure on the outer side of the foot and ankle, at A, in Figs. 1 to 4, inclusive, and counter-pressure at two points, one on the inner side of the leg, at B, and the other at the inner border of the foot, at C. It is advisable to keep in mind that this simple instrument is a lever, because, if we know that we are using a lever, with its three well-defined points of pressure, we can make the apparatus more efficient than if we view it, in a more general way, as an apparatus for giving a better shape to the foot.

Fig. 3.

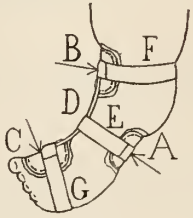

Fig. 4.

I use a little brace made of sheet brass, doing the work with a few simple tools. An advantage of doing the work one's self is that there is no room for doubt as to where the blame lies if the apparatus does not work well. Two curved disks, B and C, Figs. 3 and 4, are riveted to a shank, D, and thus is formed that

part of the brace which applies the two points of counter-pressure, while, on the other hand, the point of pressure is brought into action by a third disk, or shield, A, which is drawn tightly against the outer side of the foot and ankle, and held in place by a strip of adhesive plaster, E, which includes the limb and the piece which connects the two disks, B and C. The disks are lined with two or three thicknesses of blanket, easily renewed when necessary, with needle and thread. These braces are so cheap and easily knocked together that it is nothing to apply new and larger ones, using heavier material for the shank as the child grows. In general, three sizes will be enough, the shanks being 12 gauge, $\frac{3}{8}$ inch wide, 14 gauge, $\frac{1}{2}$ inch wide, and 16 gauge, $\frac{5}{8}$ inch wide. The disks are conveniently made from 22 gauge, $1\frac{1}{4}$ inches wide. The rivets are copper belt rivets, No. 13. A lip turned on the edges of the disks, with the flat pliers, gives stiffness to the thin brass and protects the skin from the rough edge. If more easily obtained, tin disks, light bars of iron or steel, and ordinary iron rivets, would doubtless answer.

The brace is applied with three strips of adhesive plaster. The upper and lower pieces, F and G, Fig. 4, are simply to keep the apparatus in place, which they do effectively if ordinary gum plaster is used, while, by drawing the middle strip, E, tightly over the shield, and straightening the brace from time to time, the deformity is gradually and gently reduced. At each re-application the brace is made a little straighter than the foot at that stage. This may readily be done by the hands, and then the adhesive strip is to be tightened over the shield, till the shape of the foot agrees with that of the brace. After a few days the brace is to be made still straighter, and again re-applied, and made tight till another point of improvement is gained. The brace is applied very crooked at the beginning of treatment, as in Figs. 3 and 4, and is straightened from time to time, and a longer brace applied as the deformity is reduced and the patient grows. It should be removed every week, or two weeks, and an interval of a few days allowed for freedom from the brace, when the mother is advised to manipulate the foot constantly, using as much force as she will in the direction of symmetry. Manipulating the foot during these intervals is of great importance, as cases have occurred in which varus and equinus have been entirely overcome by the mother's hand alone.

By this simple and prosy treatment, carried out systematically and without haste, or violence, or pain, the foot, unless it is a fright-

ful exception, may, with certainty, be changed from varus to valgus. At the same time, the tendo Achillis is lengthened till the position of the foot is near the norme, or at right angles with the leg, as the result of manipulation and giving brace from time to time a partly antero-posterior action. Figs. 3 and 4 show approximately the shape of the brace at the beginning of treatment: Figs.

Fig. 5.

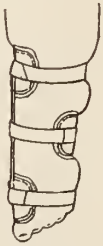

Fig. 6.

Fig. 7.

Fig. 8.

5 and 6 when the varus is reduced, and Figs. 7 and 8 when valgus has taken the place of varus. The foot, in this latter stage, may not hold itself valgus when left to itself, but, with almost no force, and with one finger, it may be pushed into valgus, and in this condition it must be when the child begins to walk, and then another stage of treatment begins.

When the patient begins to walk, we have a new difficulty. It is now seen that the weight of the body, falling on the tender and ill-formed foot, will, if not properly directed, defeat all our efforts. Let us, for a moment, consider the mechanical environment of the human foot. In the first place, the corporal weight, which the quadruped distributes among four pedal extremities, fall in man upon two. Again, the small floor area covered by the feet, and their slight structure, seem unequal to the task of supporting the towering frame above them, which in some cases almost resembles a pyramid resting on its apex. And when we observe the effect of active locomotion, we see weight and momentum combine in an apparent effort to crush and destroy. And, furthermore, when extraneous weights are added and the strain is prolonged, as in the case of the burden-bearer among savage tribes, or the infantry soldier on a forced march, the endurance of the foot excites wonder. It is not strange that the feet are subject to ailments, to blisters, bunions, ingrowing nails, hallux valgus, hammer toes, loss of the arch, weak ankles, painful affections of the metatarsus, perforating ulcers, osteitis, and the varieties of talipes. The wonder is that they are not permanently disabled soon after walking is begun, and

certainly when the adipose tissue of the body takes on the development which accompanies age and good living. The gourmand, Savarin, said that, among the works of creation, the design of the human foot was a conspicuous failure. Considering the immense weight carried by the foot, it is evident, however, that only the most perfect natural adaptation of mechanics has enabled this insignificant member to perform its superlative functions, and that great caution should attend all procedures having for their object its artificial reconstruction.

It is also sufficiently evident that the correction of club-foot by mechanical means, while the patient continues walking, is a problem beset with difficulty. We have, however, a luminous ray of hope and encouragement in the observation that, in talipes varus, there is an important boundary line between deformity and the norme. If the foot is held in some way, now to be considered, on the right side of this boundary line, each step forces it in the direction of valgus, and the increasing weight of the child is a powerful force acting in the right direction, or away from varus, so long as the foot is held, though never so little, looking toward symmetry. It may be said that the child stamps his foot straight. If, on the other hand, the foot is held, or allowed to fall, on the wrong side of this line, though never so little, each footstep is a blow, driving the foot more and more into the varus position.

This point may be illustrated by the hand placed with its ulner border on the table. If considerable pressure be made on the table by the hand so placed, it becomes evident that there is a boundary line between pronation and supination. If the hand is pronated, never so little, additional pressure will force the palm nto pronation, which represents valgus in the foot, and if the hand be supinated in the slightest degree, additional pressure will force the palm into complete supination, which represents the varus in the foot.

By the application of this idea, the weight of the body may be made a beneficent instead of a harmful factor in the progress of a case of talipes varus, and the walking brace should be constructed with this in view. It should be made of steel, and by an instrument maker. One of its functions is to act as a lever, but the leverage is applied not chiefly to overcome the deformity by direct force, as in the retentive brace above described, but to hold the foot on the right side of the boundary line above mentioned, so that the weight of the body may straighten the foot, or overcome

the varus in a direct and forcible manner, without general or local inconvenience.

The walking-brace consists, as usual, of leg-band, H, Figs. 9 and 10, foot-piece, I, and upright, J, riveted firmly together. A movable joint at the ankle should be discarded, as it undermines

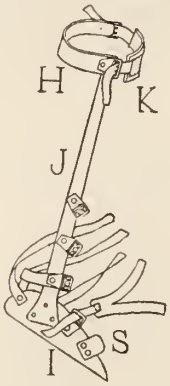

Fig. 9.

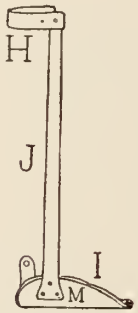

Fig. 10.

the lever by introducing an element of instability and, in this brace, serves no good purpose. Mild steel alone should be used, to facilitate alterations in shape, as point after point of improvement is gained, and to make easy the shifting of buckles and straps, as may be required, all of which may be done by the use of a few simple tools. The upright is to be on the inner side of the leg, as in Fig. 14. The upper part of the brace makes counter-pressure on the inner side of the leg, but it has another important function, in previously neglected cases, which is secured by the steel band passing across the back of the leg, to which are fastened two buckles for the attachment of a piece of webbing, K, in Fig. 9, which passes across the front of the leg. The steel band should make no pressure on the limb as its use is simply to furnish attachment to the buckles. A piece of webbing spanning the front of the leg in this manner, and carrying a pad, performs an important service in cases like the one shown in Fig. 12, in which, from previous neglect, the varus has not been reduced before walking begins. It transfers a part of the weight of the body from the anterior part of the sole of the foot, where it interferes with the correction of the varus, to the upper part of the anterior surface of the leg, where it is powerless to interfere with the treatment. That the weight-pressure thus transferred is considerable, is shown by the callus and bursa which appear where the padded strap crosses the

leg near the tubercle of the tibia. This mechanical effect is similar to that of the brace shown in Fig. 11, used in the treatment of paralysis of the muscles of the calf, resulting in talipes calcaneus.

The upper part of the brace is also to be considered in another light, as follows: In previously neglected cases it is well to incline

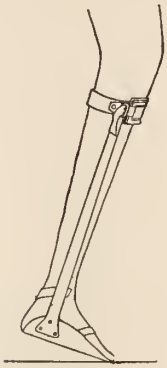

Fig. 11

Fig. 12.

the upright 15° or 20°, or more, backward from the vertical of the foot-piece, as is shown in Fig. 9. Although correction of the equinus is postponed by this inclination of the upright, we are thus enabled to apply a better leverage against the varus, and when the varus is reduced, and the time arrives when the equinus is to be corrected, this backward inclination of the upright is to be lessened from time to time, till the vertical is reached, as in Fig. 10, or till the upright has an inclination forward, allowing the corporal weight to fall more and more on the anterior part of the sole of the foot, and gradually lengthen the tendo Achillis. The vertical upright, Fig. 10, is to be applied at once to patients in whom the deformity has been corrected before walking begins.

We will now pass to a consideration of the other end of the brace, the foot-piece, which is to be made of sheet steel ranging from 18 gauge, for a child learning to walk, to 13 gauge for an adult. It has the usual tread, L, Fig. 13, and riser, M, Fig. 10. The heal-cup is formed by a piece of webbing, N, Fig. 13, passing behind one heel, from the lower part of the upright to a spur, O, Fig. 13, which projects upward from the back part of the outer border of the tread. Viewing the apparatus again as a lever, for the forcible reduction of varus, in a previously neglected case, counter-pressure is made along the inner border of the foot, and on the upper part of the inner side of the leg, while pressure is made by

one strap, or more than one, riveted and buckled to the foot-piece and the upright. But one strap is shown, P, in Figs. 13 and 14.

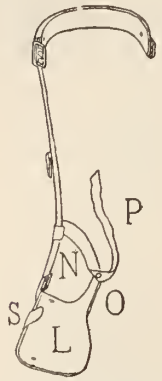

Fig. 13.

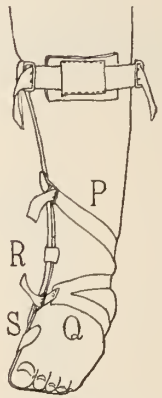

Fig. 14.

This will be sufficient in the case of a child whose varus has been corrected before walking begins, but in a previously neglected patient, in whom the varus has yet to be reduced while the child is active on his feet, two, three, or more straps may be added, as shown in Fig. 9, partly encircling the foot, ankle, and leg, the positions of the buckles and the straps being where they will assist most efficiently in opposing the varus and holding the foot in the best position to receive the weight of the body. These parts of the apparatus may beshifted many times with advantage in the treatment of a given case of unusual difficulty, and, in addition, a most efficient agent for applying continuous pressure is found in a strip of adhesive plaster, Q, Fig. 14, sewed to a piece of webbing, R, the plaster partly encircling the foot and ankle, with a single tail or two tails, as may be required, and the webbing being drawn tightly and buckled to the inner side of the riser. This device does more than simply to increase the amount of pressnre ; it also keeps the heel down on the tread of the foot-piece and, more important still, it gives the foot a rotation outward and thus directs the sole of the foot forcibly toward the ground, in the best position for making the weight of the body a corrective instead of a deforming force. The riser of the foot-piece may also, in previously neglected and difficult cases, carry an ear, S, Figs. 9, 13 and 14, made of sheet brass, which is to be bent downward over the first metatarso-phalangeal joint, to prevent the inner border of the foot from over-riding the edge of the riser. The foot-piece is to be lined with adhesive plaster, in several thicknesses, if necessary, to

prevent rust, and with a piece of leather fastened to the tread and spur with copper rivets, as shown in Fig. 10. In practice, the details demand as much attention as the principles of treatment. The brace is to be applied over the stocking, the strap, R, passing through a hole cut in the stocking, and is hidden by the patient's trousers and shoe.

We will now consider the upright of the brace. It is a flat, tapering bar of mild steel, and, when first applied to a previously neglected case, such as is shown in Fig. 12, should have a curve resembling that of the varus foot. The bar, though sharply curved, as in Fig. 13, should, however, be somewhat straighter than the foot ; then the latter is forced manually into its best position. The multiple straps, shown in Fig. 9, should then be buckled and tightened daily till the continuous leverage has partly reduced the varus. The upright bar should then be somewhat straightened, and another point of improvement be gained, the patient in the meantime following his ordinary pursuits without interruption. In due time the upright bar, and the foot itself, will both be straight, as

Fig. 15.

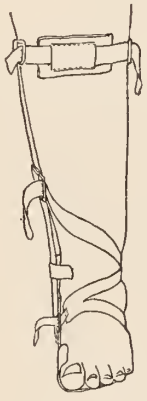

Fig. 16.

seen in Figs. 15 and 16; in other words, the varus will be reduced. The upright should then be bent, from time to time, in the direction of valgus, as seen in Fig. 17, and the persistent and gradual effort resumed until the foot has been pushed, or pulled, or pried, over the boundary line, into the domain of valgus, as seen in Fig. 18. These efforts would not be necessary if the varus had been converted into valgus before the child had learned to stand. In very badly neglected cases this interference of the weight of the body with the treatment may be prevented by the recumbent posi-

tion, or the use of a high sole on the well foot and the ischiatic or axillary crutch, until the varus has been materially reduced. In all cases, when the child is old enough to be docile, domestic instruction and drill in eversion of the foot, and in the proper

Fig. 17.

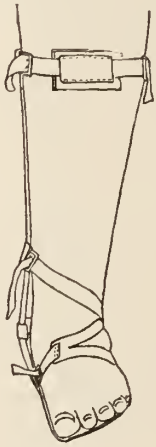

Fig. 18.

management of the foot in locomotion, should be a part of the education.

As soon as the foot has reached the valgus shape, whether it be at the moment of learning to walk, or only after prolonged effort in a neglected case, a curious effort will be observed. It will be seen

Fig. 19.

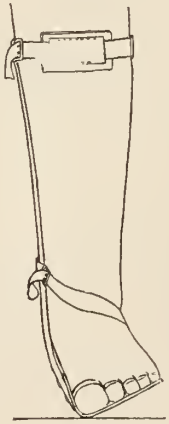

Fig. 20.

that the outer border of the tread of the foot-piece is raised from the ground, as seen in Figs. 19 and 20, and that we have secured,

in a convenient manner, the effect which is sometimes sought by building up the outer border of the sole of the patient's shoe. This is a welcome and powerful ally in our attempts to hold the foot in a favorable relation with the weight of the body and the ground.

The walking-brace has been above described as though its chief use were to reduce varus which has become more or less confirmed by the habit of walking on the outer border of the foot. Strictly speaking, such cases should never occur. They are, however, too common and always indicate that the child has been neglected from the period of recumbent infancy, when deformity of this kind is the most easily overcome. If the varus were always corrected before the child learns to stand, then the only use of the walking-brace would be, as shown in Figs. 19 and 20, to gently hold the foot in valgus, so that the weight of the body shall be sufficient to lead the child to grow up with a foot practically normal. As such a child outgrows the brace, a larger one is to be made, and, when three or four years old, the foot will, without the help of the brace, strike the ground so fairly that, for two or three years, all treatment may be suspended. The patient is to be observed from time to time, however, and, as the foot grows in its original inclination to varus, it will, after the lapse of two or three more years, have to be kept in proper position, under the rapidly increasing weight of the body, by a walking-brace adapted to its needs, for another period of two or three years. When the foot is full-grown, it will be shapely in appearance and practically perfect in its ability to perform all the duty of a foot congenitally normal.

Although congenital club-foot has been chiefly kept in mind in the foregoing pages, the views expressed in regard to the influence of the weight of the body are applicable also to talipes varus of paralytic origin. In this affection, at an early stage, and before the foot has lost its flexibility, a simple walking-brace is needed, as in Figs. 19 and 20, to properly direct the action of the weight of the body on the paralyzed foot. At a later period, if this measure has been neglected, and the foot has been allowed to become varus and more or less inflexible, the case will require more attention and probably prolonged effort, with multiple straps and adhesive plaster, to carry the foot across the line between deformity and the norme, to the position in which the weight of the body shall be a correcting and not a deforming force.

38 East Twenty-fifth Street.

Clinical Report.

HYSTERIA WITH PROBABLE GASTRIC ULCER.

By ALLEN A. JONES, M. D.,
Lecturer on, and Instructor in, Practice, Medical Department, University of Buffalo.

The chief points of interest in this case are hysterical cough, trance, convulsions, fainting spells, esophageal stricture, paralysis of right leg, associated with profuse hematemesis, persistent vomiting, regurgitation and nervous belching.

A young woman, E. P., aged 20, presented herself May 16, 1892, and gave the following history: Father died of heart disease at thirty-two. Mother living and well. Never had a brother. One sister living and healthy; one died at sixteen; cause of death unknown. Patient was a healthy infant and child until her tenth year, when she menstruated first. From that date she suffered much from intercostal neuralgia. Between her tenth and fifteenth years she had a dry, hacking cough, lasting one year. When about thirteen, she had a trance, commencing at 7.30 A. M. on May 12, 1885, and continuing until 3.30 P. M. the day following. The same month she had convulsions, lasting, one after another, eighteen hours a day, and these were frequent and severe until September. During that period stricture of the esophagus was so persistent that gavage was practised several months. Late in the Autumn of that year she grew better, but had not the use of her right leg, so could not walk for some time. Since that time she has been very weak and tormented by epigastric and ovarian pain. She has had leucorrhea since she was thirteen years old. Hematemesis occurred first at the time of her trance, and since that event she has vomited blood, sometimes three or four times a day, two or three days in a week, sometimes with intermissions of a month or six weeks. She spent the Summer of 1890 on Lake Erie shore, but vomited nearly everything she ate, and, upon returning to Buffalo, fainted three or four times a day, vomited frequently a teacupful of blood, and became fearfully blanched. Last Summer, was better than usual until September, when she again commenced vomiting food and blood; had severe epigastric pain, grew steadily paler and weaker, was constipated, but occasionally had diarrhea with bloody stools.

May 16, 1892.—At present she regurgitates her food, vomits blood frequently, has pain, made worse by eating, gastric and intestinal flatulency with sour stomach. She is constipated, has a capricious appetite, alternating with total anorexia; craves sour things. She frequently has "fainting spells" of five or ten minutes' duration. Sleeps

poorly ; no somnambulism. Vision apparently normal, its field not contracted, no nystagmus, no color-blindness. Last menstruated four months ago, flow was scanty. Leucorrhea is profuse. Uterus otherwise normal.

Blood by D'Henocque's hematospectroscope registers by the plate forty, by the spectroscope forty-five. Obviously the hemoglobin is much reduced. About two inches above the coccyx is a very tender spot, but nothing of the kind in the other spinal regions. Reflexes, normal. No areas of anesthesia or paresthesia. No conjunctival anesthesia. Lungs, normal. Over precordium is heard a soft, blowing, systolic, apical murmur. Pulse, fairly strong, regular, with moderate arterial tension. Liver and spleen, normal. Epigastric tenderness located a little to right of median line. Stomach, normal size ; no clapotage. Sensitiveness over ovaries. Examination of abdomen otherwise negative. Urine, phosphatic.

Progress in Medical Science.

DEPARTMENT OF BACTERIOLOGY AND DERMATOLOGY

Conducted by FRANK J. THORNBURY, M. D.,

Demonstrator of Bacteriology, Medical and Dental Departments, University of Buffalo.

TETANUS BACILLUS.

The tetanus bacillus seems to have contributed its share of ptomaines to the group of germ products. Breger has now isolated four toxines of tetanus. They are designated, tetanin, tetanotoxin, spasmatoxin, and hydrochlorotoxin. All of these are capable, in infinitely small doses, of producing typical tetanic spasms.

Work in the production of immunity is becoming very interesting. We have recently reported from the Innsbruck surgical clinic, another case of tetanus, cured by the hypodermic injection of 0.15 G to 0.20 G doses, Tizzoni & Catlani's antitoxin. This antitoxin was obtained from the blood serum of a dog, rendered artificially immune to tetanus.

Explanation of many previously obscure points is found in the results of bacteriological investigation. We are now in position to understand why it is that tetanus only occurs, as a rule, in deep wounds,—lacerated or punctured,—and particularly in toy pistol injuries, and punctures produced by splinters from the floor.

The tetanus bacillus, being anerobic, will not develop in presence of air, and, therefore, only produces its morbid consequences when buried deep in the tissues. Only by observance of these biological peculiarities can we obtain pure cultures of the bacillus. The exclusion of air from the culture medium is accomplished by passing hydrogen gas through it, or the agar tube is inoculated by introducing the needle deep into the interior of the agar.

Of course, there is no difficulty in understanding how the bacilli gain entrance to the wound. Garden earth abounds in tetanus bacilli, and pure cultures may be obtained from this source by inoculating mice with the earth, and as they develop tetanus, pouring plates from the blood, and thus isolating the bacillus.

On a certain island near New York, nearly every wound of any depth is complicated by tetanus, and the soil here is found to be especially rich in tetanus bacilli.

SPORE AND NON-SPORE FORMING PATHOGENIC BACTERIA.

By reason of the widely varying degrees of resistance between the ordinary vegetative bacteria and those forming spores, it is very important that we should be familiar with the pathogenic microorganisms which have this special power of resistance.

The list is briefly as follows : 1.—Spore forming pathogenic organisms, (*a*) anthrax bacillus, (*b*) tetanus bacillus, (*c*) tubercle bacillus, (*d*) influenza bacillus, probably. 2.—Non-spore forming pathogenic organisms, (*a*) staphylococcus pyogenes—aurius albus and citrus, (*b*) streptococcus pyogenes, (*c*) streptococcus of erysipelas, (*d*) Löffler's diphtheria bacillus, (*e*) Löffler-Schutz glanders bacillus.

LICHEN RUBOR PLANUS, COMPLICATED BY PEMPHIGUS EXFOLACIUS.

This extraordinary case which occurred during the past winter in the dermatological clinic of Vienna, is said by Prof. Kaposi to be the only case of the kind on record ; at least no analogous instance is found in the literature. The case was one of ordinary lichen rubor planus in a man about sixty. He had been in the hospital twice previous for treatment of his lichen rubor, which had now recurred and presented the usual characteristic, small glistening areas, slightly smaller than a hypodermic tablet, concentrically depressed and distributed quite symmetrically over

the extensor surfaces of the extremities and over the anterior and lateral thoracic regions. The usual arsenical treatment was being carried out when the patient suddenly became extremely ill, and was attacked with a pemphigus universalis.

Locally, there was tenderness and hyperemia with some vesiculation and later large bleb formation. The latter were present, especially over the body and upper extremities, and in parts where the atrophic lichen papules were undergoing involution. The blebs contained an opalescent serum ; after their spontaneous or artificial rupture and escape of the fluid, exfoliation of the superficial epidermal lagers occurred and left exposed a raw, reddened, and extremely painful surface.

Constitutionally, the man was affected as though suffering from some acute infectious disease. As stated above, he was completely and quite suddenly prostrated, and had chills followed by elevation of temperature to 102° or 103°. The pulse was 112 to 120. There was complete anorexia and insomnia on account of pain.

The countenance wore an expression of anxiety and distress, every movement of the body caused intense suffering, and, generally speaking, the patient was in a very miserable condition. Kaposi presented the case before the Vienna Dermatological Society, and it was discussed by Hebra, Ehrmann, Neumann, Lang, Finger, and others, but none of these so widely experienced dermatologists had ever seen an analogous case.

The treatment instituted was symptomatic, and comprised, locally, the Kaposi water baths and later the tar baths ; constitutionally supportive remedies were administered in the form of tonics and free stimulation. The prognosis seemed unfavorable. Two other cases in the ward died of pemphigus vulgaris about the same time; but the case here referred to, began to improve after a long and critical illness, and he was canvalescent in Ward 33, of Kaposi's clinic, at the last knowledge of the writer.

THE HYPODERMATIC TREATMENT OF SYPHILIS.

This method is quite generally in vogue on the Continent at the present time, and it has certain merits over the use of enunctions and the giving of mercury internally. First of all is the infinitely less trouble associated,—a thing always of importance to the patient. The difference consists in a hypodermic injection once in eight

days, as compared with an enunction for quarter or half of an hour every day, or the taking of medicine every three or four hours for months.

The results are very satisfactory, especially in the secondary stage. Here the eruption subsides quite symmetrically under influence of the treatment. The gluteal region is the part usually selected for the injection, which is made as deeply as the length of the needle will permit. A variety of solutions are employed by the Vienna syphilographers, each one having his special formula. Kaposi prefers an aqueous solution of corrosive sublimate in chloride of sodium. Finger uses the salicylate of mercury, while Neumann and Ehrmann inject the concentrated oleum senerium. Prof. DeAmices lauds the superior merits of succinimide of mercury in a one per cent. solution of cocaine. Very satisfactory results are produced by the latter in the tertiary as well as the secondary stages. Economy of time, then, and convenience, with evident prompter action and more immediate results, are the arguments for this method of treatment, and those which have gained for it the popularity which it now enjoys.

In clinic practice a number of cases can be dispensed with in a comparatively short time. On the day for syphilitics in Lassar's clinic, Berlin, thirty to fifty victims present themselves in line before the assistant, who injects them as fast as they can conveniently change places in front of him. After injection the patient applies gentle massage for two or three minutes with a small quantity of sterilized vaseline over the gluteal area. The hypodermics are administered alternately in the right and left sides. It is seldom that any induration occurs. I have never seen abscess resulting.

THE BACILLUS OF RHINOSCLEROMA.

Rhinoscleroma, first described by Hebra, is an affection characterized by a chronic inflammatory thickening and induration of the tissues, by a slow and insidious process of infiltration. Usually, the nasal appendage, fauces, and larynx are the seat of the trouble, although other parts may be involved.

The etiology of the disease has always been a question of much interest. Kaposi, in a report of nine cases, first showed that the disease had an infectious origin in a special bacillus; and now Paltauf (*Hygienische Rundschau*,) comes forward with fifteen additional cases, in which he corroborates Kaposi's observations, in

the announcement that the bacillus is invariably present and permits of very precise differentiation from the former Friedlander pneumococcus, which it was thought very closely to similate. In each of the fifteen cases reported, Paltauf succeeded in cultivating the rhinoscleroma bacillus from the blood and tissues in which, hystologically examined, vast numbers of the bacilli were present. According to the literature, there have been in all now about forty-two cases of rhinoscleroma, in which the bacilli has been demonstrated by cultivation.

The constant presence of the organisms can leave no further doubt as to their causative relation to the disease. Inoculation of the bacillus by Stapanow, in the eyes of guinea-pigs, produced a diffuse keratitis and tubidity of the aqueus. The bacteria were found in the iris, cornea, and lens, and produced a hyeline degeneration of these structures. A bacteriological may now be added to the therapeutic test in differentiating this disease from lues. In addition to the cases affecting the nose and alae nasi, Paltauf found that the gums, fauces, trachea, and larynx are frequently the seat of rhinoscleroma, and that the disease is ofen primary in, and confined to, the larynx and trachea.

CHOLERA.

According to M. Netter (*Le Progrès Médical*), the bacillus of the present epidemic differs slightly from the comma bacillus discovered by Koch, in India, in 1883. It is thicker, shorter, and larger than the Indian bacillus, causes turbidity of bullion, and in pancreas prepared gelatin it grows more rapidly. The bacillus was found in the dejections in twenty-nine cases of cholera. In one case of bronco-pneumonia it was also found in the sputum, but it is never present in the blood. In thirty additional cases examined in Paris, the comma bacillus was *not* found. These cases were probably cholera nostras, as there has been, as yet, no authentic case of Asiatic cholera in which the comma bacillus was not present (Fraenkel).

The question of a spore in the cholera bacillus is an important one for obvious reasons, but, as far as the majority of observers have been able to determine, the comma bacillus has no spore, although Huppe, of Prague, claims a fructification propensity of this germ by virtue of an arthrosporulation, which process he claims to have observed under the microscope. First, the bacilli

grow to form spiral threads, then occurs in places refractive nuclei, each of which give rise to two or more immotile embryonic cells ; the latter do not multiply by the usual method of spontaneous division, but by a process of proliferation, in which young bacteria are given birth to as soon as a fresh nutrient medium is provided. But no one has as yet corroborated Huppe's interesting observations ; on the contrary, laboratory experience with the cholera bacillus has shown it to be one of the most sensitive and non-resistant organism with which we are acquainted. A temperature of 50° is sure death to the germ in a very short time. Its resistance to chemical agents is almost *nil* ; this is especially true with reference to acids ; hence, their destruction by the gastric juice if of normal reaction. Only in an alkaline or neutral culture medium will the cholera germ develop. With reference to dryness, it is also extremely sensitive ; deprived of moisture, they die very quickly. In presence of moisture, on the other hand, they live for months, and in water, sterilized, they multiply luxuriantly. In decomposed fluids the bacilli rapidly lose their existence. Kitasato and Uffelman found this also to be true with reference to artificial intestinal excretions, while Gruber succeeded in obtaining pure cultures from cholera dejections after weeks.

The temperature limits for the germs' development are 42° and 15° C. respectively.

According to the Pettenkofer school, the all-important factor in the occurrence and spread of cholera is the condition of the soil as influenced by season and location.

Heat and moisture, a certain physical consistency and fertility, are the cardinal requirements. The cholera germ, as known, gains entrance to the alimentary tract through the drinking water or food. Any impairment of the digestive function, especially reduction of the acidity of the gastric juice, or a sluggish state of peristalsis, predispose to the disease.

As products of the bacillus there has been isolated a toxalbumine and a toxicpeptone. In addition, cholera cultures form nitritis and indol, which, upon the addition of nitric acid, evolves a red pigment, "cholera red." The latter has been isolated and extracted. Artificial immunity is being tried by Pasteur. A certain natural immunity is conferred by one attack of the disease, but this immunity does not seem to exceed four or five years. Very exceptionally an individual will experience two attacks of cholera during the same epidemic.

Buffalo Health Department.

REPORT OF THE CONDITION OF THE SIXTH HEALTH DISTRICT OF BUFFALO.

By A. L. BENEDICT, M. D.

For sanitary purposes the sixth district can be best considered in sections, as follows:

Section 1. Bounded by Front avenue, Wilkeson, Mohawk, and Niagara streets, Delaware avenue, Church, and South Division streets, Washington street, East Tupper and Michigan streets, Genesee, Jefferson, Virginia, Cottage, and Hudson streets.

Sec. 2. Bounded by West avenue, Hudson street, the lake and river, Georgia, and Court streets.

Sec. 3. Bounded by Georgia and Court streets, the Terrace, Erie street, the water front.

Sec. 4. Between Main and Michigan streets, the Hamburg Canal, and Seneca streets.

Sec. 5. Between Swan and Genesee, Washington and Michigan streets.

The sanitary condition of the first section is generally good. There is an abundance of vegetation and of "breathing spaces." The streets are, for the most part, well paved, and many are asphalted. Most of the dwellings are occupied by only one family, and crowding occurs only in blocks along some of the business streets. Privy vaults are not numerous, except in the eastern and extreme western portions of the section. The inhabitants can hardly be approached by a sanitary official, but they will probably avail themselves of suggestions published in the newspapers.

Section 2 contains a few tenement houses. Most of the dwellings are cottages occupied by one family, or two-story houses occupied by two or three families. On account of the large number of children, and the carelessness rather than poverty of the adults, there is much sickness. While this section is not closely built up, there is little vegetation to aid in the oxidation of organic matter. West of the canal, sanitary provisions are conspicuous by their absence. Privy vaults are necessities, and the canal water is used for domestic purposes. An abundance of fresh air is, however, a favorable feature.

Section 3 contains a number of fairly good tenement houses

and rows of smaller houses, as on Mechanic and Barker streets. The proximity of the canal and slips, the comparative lack of vegetation, a number of filthy privy vaults, and of unpaved streets, into which garbage is thrown, tend to make this section unwholesome. Many of the inhabitants are Italians, who cannot understand English. They are, however, tractable and obedient patients, and are much more cleanly in their habits than is generally supposed. They are prone to eat stale meat and fruits, and, on account of their gregarious habits, an infectious disease would spread rapidly among them.

Section 4 comprises part of the real tenement house district of Buffalo. In the same building may be found people of various nationalities, representing various degrees of comfort and of squalor. Most of the buildings have water-closets, some in good order, many in a filthy condition. This part of the city is very compactly built, and there is much sickness.

Section 5 is in a transition state. Many families are in comfortable and sanitary quarters, others are crowded and surrounded by dirt.

Special attention is called to the following topics :

Livery stables are numerous in the sixth health district, and are, for the most part, close to residences. To prevent fermentation and putrefaction, manure should be removed daily. Disinfection of the stable floors would be easy and cheap.

Saloons, Restaurants, Small Hotels.—The water-closets or privies of these places are frequently extremely filthy. The food supplied to customers is apt to be of bad quality. The discharges from the stomach and bowels of drunken men, left in rooms without attendance, may infect floors, walls, furniture and bedding. The proximity of the depots to the Exchange street restaurants will make them points of suspicion if cholera gains a foothold in this country.

Railroads.—Very fortunately the freight and passenger depots prevent the too close approach of dwellings to a long stretch of the Hamburg Canal. Most of the water-closets in the depots are in fair condition. The Central tracks run through the sixth health district. As railroads are the principal carriers of infection to inland towns, and as the main exit of the cholera spirillum is through the intestines, the closets in passenger cars should be kept locked inside the city limits. In fact, it would be better, though more expensive and troublesome, to have a metal bucket fitted to the ordinary open cylinder of the car closet. A disinfectant could be

kept in the bucket, which could be changed at certain stations and the disinfection completed.

Business Blocks.—There are many in the sixth district. In some of them a large force of men are employed and the closets are in a filthy condition. As physicians are rarely called to these buildings, the sanitation can only be determined by special inspectors.

Churches.—Vaults should be inspected and disinfected if necessary. If cholera comes, the vaults should not be used this winter. Regulations with regard to funerals will, of course, be enforced. The clergy, of the catholic church especially, could do much to instruct the people in simple hygienic rules. Entirely aside from the possible danger of cholera, it must be recollected that a large proportion of deaths in childhood occur from too frequent nursing and from improper feeding of older children. These evils cannot be guarded against by physicians except when much harm has already been done. The influence of an intelligent priesthood could reach a large number of persons, especially foreigners, who cannot receive instruction through newspapers and bulletins. If cholera becomes general, church meetings and all public assemblies should be discouraged.

Pavements and New Buildings.—Disturbance of the soil should be avoided as far as possible. Cellar digging, even in the best sections of the city, is apt to upturn the contents of old privy vaults which have been filled in without having been emptied.

Garbage should be gathered three times a week for at least another month. Collections should be made in the day time, so that the odor would give warning and afford an opportunity to close doors and windows. Asphalt streets should be washed with streams of water from fire hose after the garbage has been collected. Possibly, even stone pavements would stand the force of the water. Street sprinklers are an abomination, as they serve only to furnish the moisture necessary to convert the dirt into a nidus for germs. Clean streets need no sprinkling to "lay the dust," and the only way in which sprinklers should be allowed are on dirt roads and in advance of street sweepers.

Water.—All efforts to economize water should be abandoned, and people should be encouraged to flush out drains and sinks daily.

Dead bodies of cholera patients should be cremated. Popular prejudice would, however, probably not allow the enforcement of

this principle. Thorough arterial and cavity embalming should, at least, be insisted upon.

Markets, grocery stores, and butcher shops are numerous in the sixth district. Decayed vegetables, fruit, and meat should be frequently removed, especially from cellars. Venders of fruit from stands and wagons are particularly apt to carry a stale stock of fruit and vegetables. Licenses should be granted with caution, and inspection should be adequate. The Chippewa market should be carefully attended to, and the whole area should be cleaned and disinfected after market hours. Being paved with stone blocks, the out-door market has no safeguard against infection by soakage. It is not probable, however, that any specific choleraic focus will be established here, unless it starts from the public closets, whose condition is far from perfect.

It is believed by the writer that the preceding report, hastily prepared, will give a general idea of the condition of the sixth health district, and of some of the special dangers to be guarded against in it. Incidentally, some more general suggestions have been introduced, and in them no effort has been made to distinguish between those relating to ordinary sanitary measures and those aiming particularly against cholera Asiatica.

THE Health Commissioner of Buffalo has issued the following circulars:

[*Official Health Bulletin No. 1.*]

PRECAUTIONS AGAINST CHOLERA.

In view of the possibility of a visitation of Asiatic cholera, the Department of Health calls the attention of householders and others whom it may concern, to the importance and necessity of placing their premises and surroundings in a thoroughly sanitary condition. With this object, a careful perusal and compliance with the following is officially urged:

Water-closets should be kept scrupulously clean, frequently flushed and disinfected. Privy vaults, cesspools, and other nasty substitutes for excreta are a menace to health at all times. Under the present circumstances, therefore, they demand the utmost attention, and should be kept particularly clean, ventilated, and disinfected, and additionally all communicating sewers thereto should be kept well flushed, freed from defects, and likewise disinfected.

Drain pipes, sinks, and all channels in which refuge is carried off, should be inspected, repaired where necessary, kept free, frequently flushed and disinfected.

The emptying of slops, the spilling of garbage, or the accumulation of refuse upon the surface, either around the premises or in adjacent alleys, is dangerous in the extreme, and is imperatively forbidden. House refuse while awaiting removal should be confined in covered metallic receptacles and frequently disinfected. The burning of garbage is the best method of its disposal, and is recommended.

Particular attention is directed to dark and damp cellars, with their possible accumulation of filth therein. Such should be promptly cleaned, well ventilated, and chloride of lime freely used.

Well and cistern water being most liable to pollution, their surroundings should be especially looked after and any and all sources of contamination attended to.

The attention of those engaged in the so-called offensive trades, as well as keepers of stables, slaughter houses, and other similar places, is particularly called to the importance of the subject, and, in view of the impending danger, are directed to immediately put their premises in such condition of cleanliness that germs will find no congenial soil.

Among the readily obtainable disinfectants for common use may be mentioned chloride of lime, which is cheap, but must be employed freely and often. It is applicable for privy vaults, cellars, stables, etc.

Carbolic acid in the proportion of one part to twenty-five, or corrosive sublimate, one part to 500, are adapted to surface disinfection.

Copperas, one pound to a bucket full of water, may be employed in out-houses, sinks, and drains.

Chlorinated lime may be said to be the best germicide for the purification of filth of all descriptions.

The whitewashing of out-buildings, cellars, stables, places liable to harbor dirt and attract infection, is one of the cheapest and best means of maintaining them in a cleanly condition.

ERNEST WENDE,
Health Commissioner.

[*Official Health Bulletin No. 2.*]

TENEMENT HOUSES.

One of the true safeguards against the visitation of Asiatic cholera is the general cleansing and disinfection beforehand. Therefore, it is directed that owners and agents of tenement houses will forthwith place their respective buildings and their surroundings in the best sanitary condition. This implies an inspection and correction of all offensive conditions from cellar to garret.

Cellars must be ventilated, thoroughly cleaned, and all accumulation of refuse from corners and other obscure places promptly removed therefrom.

Further, the free use of chloride of lime to the floors, the cleansing

and whitewashing of the walls with more than one coat, and the placing of boxes of quicklime in suitable places, purifies and dries the air, and renders the cellar wholesome.

Walls throughout the buildings, especially in overcrowded rooms, the halls, and dark passages, can be placed in a cleanly condition by the free use of whitewash.

Drains, sinks, water-closets, and other vehicles for the removal of waste and refuse, must be put in repair, cleansed, and from time to time treated with an effective disinfecting solution.

The grounds and surroundings, so often, through carelessness, dirty and littered with offending material, must be cleaned and kept undefiled.

Outdoor privies must likewise be cleansed, kept so, and disinfectants freely used in and around them.

In this connection, attention is called to the fact that, upon failure of those responsible in the matter, the Department of Health is empowered by law to make sanitary any condition detrimental to the public welfare, the cost of the same being a lien upon the property.

ERNEST WENDE,
Health Commissioner.

[*Official Health Bulletin No. 3.*]

CARE OF THE PERSON IN RELATION TO CHOLERA.

The liability to infection from pestilential diseases, more especially Asiatic cholera, can be materially diminished by the observation of certain laws of health and habit. The testimony of history bears this fact out to the fullest extent. Inasmuch as the disease assails only by the way of the intestinal canal, the indications are largely to maintain this portion of the body up to the best standard by guarding it against all sources of irritation and contamination, and correcting all deviations and slight ailments of it without delay.

The following suggestions in relation thereto are made for the benefit of the public with the fullest confidence :

The infecting cholera germs being destroyed by heat, and most likely to be introduced through articles of food and drink, such should receive the closest scrutiny as to the condition and cleanliness, and to be taken only in a cooked form.

Water should be boiled, and milk, from its great absorbing properties, likewise treated and kept in the most cleanly of places, essentially so where its use is intended for children.

Fruits and all other raw articles of food should be avoided, as they are liable to excite diarrheal troubles, and are prone to accidental contamination, while canned goods, from their mode of preparation, hold an important place. Pains should be taken to keep kitchen utensils,

tableware, etc., absolutely clean, and in the advent of disease being present, should be scalded before using.

Cleanliness of the person is more important, if possible, than ever. The use of alcohol should be avoided, dissipation, excesses of all kinds abandoned, and not the least in eating. Disturbances of the bowels and stomach increase the liability to such a marked degree, that the apparently most simple irregularity is sufficient justification to immediately obtain medical advice, which, with our equipment of dispensaries and hospitals, is available as well to the poor.

During the prevalence of the disease, these precautions become imperative. In households, which may be visited by the malady, additional care becomes necessary, and the instructions of the attending physician followed faithfully. It is sufficient here to refer to the fact that the contagion exists only in the stools and vomited matter. Therefore, furniture, clothing, bedding, utensils, as well as the hands and person, contain and carry the infection should they become soiled in the slightest manner. In such event they must be at once cleansed and disinfected.

Particular caution is necessary in dealing with the stools. A disinfectant should be added to them as soon as passed; they should be conveyed, covered, and the place where emptied flushed and well disinfected.

Personal fear is to be discouraged, and is in no way warranted with the existing means of dealing with epidemics, and individual common sense and care, danger is reduced to a minimum.

ERNEST WENDE,
Health Commissioner.

THE metric system is frequently used in prescriptions, pedantically and otherwise, and for the benefit of those not accustomed to this plan, we will insert in this column, in each issue of the *Journal*, the following correct table of metric weight and measure:

The metric unit of fluid measure is the liter, the cube of one-tenth meter, or 1,000 cubic centimeters—equal to about thirty-four fluid ounces. The metric unit of weight is the gram, which represents the weight of one cubic centimeter of water at its maximum destiny. It is equal to about fifteen grains.

One cubic centimeter is equal to about sixteen minims:

Thus: 1-64th grain=100th gram, or 0.001
" 15 grs. =1 gram, or 1.000
" 1 grain=1-15 gram, or 0.066

By a little study, the above will clear up trouble in reading this system, which is already confusing our readers instead of helping them.—*Hot Springs Medical Journal.*

BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

EDITORS:

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business character, should be addressed to the managing editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XXXII. OCTOBER, 1892. No. 3.

THE CHOLERA AND THE LAW.

IT IS a matter of great satisfaction, and it ought to be the pride of the citizens of Buffalo, that its health department is manifesting such activity and efficiency in making all reasonable preparations to meet any possible advent of cholera. It is true that the possibility of its reaching Buffalo during this season may be a remote one, but it cannot be denied that it is raging in some parts of Europe with fearful havoc, and that it has even been brought to our very doors, whose thresholds, happily, it has thus far not been allowed to cross. But it will not do to act upon this possibility when steamships are arriving at our chief port of entry, almost daily, with cases of cholera on board.

Dr. Ernest Wende and his able assistants, Drs. Pettit and Heath, together with their several coadjutors in the work, ought to receive the support of every respectable citizen in their attempt to put the city in a thorough sanitary condition. At a time like this it is not pertinent to quarrel over details, or to utter captious criticisms of minor acts. We hesitate not to declare that any individual who does so, either by voice or pen, deserves the anathemas of every decent well-thinking man and woman. It is a fortunate thing that the health authorities are clothed with plenary powers, hence are not obliged to ask the other departments as to how far they may go in the performance of their duties. Unless they proceed to apply the most extreme measures of prevention known to sanitary science, they will be held to a strict account for any and every case of cholera which should gain entrance into this city ; but, on the other hand, they must be given every opportunity to prevent its advent that an intelligent and liberal people can afford. In the main we believe this has thus far been done, and we bespeak for the future

an equally ready compliance with all the orders that may be issued by the health commissioner.

It would seem as though some such threatening danger was needed to stimulate a proper sanitary spirit on the part of the administration of municipal governments. This is comparatively a healthy city, yet in places it wreaks with noisome stenches, and in some others the accumulated filth is amazing. Here is an opportunity for a thorough overhauling of every nook and cranny where filth accumulates, and where disease-producing germs may propagate.

In the lower bay of New York, at the present writing, there are twenty-eight quarantined vessels, some of them containing many cases of cholera, and on board a few deaths are occurring daily. The wisdom of the national quarantine circular has not been questioned anywhere, so far as we know, except by the chief quarantine officer at New York, Dr. William T. Jenkins. It was given out that Dr. Jenkins proposed to pay no attention to this order, but would act on his own judgment with reference to the period of quarantine. In the presence of such danger as seems imminent, we have no patience with any quibbling subordinate officer who attempts to assert his own authority and to set up his own rule of action in defiance of the national supremacy. If these conflicts are likely to arise between State and Nation on the subject of quarantine in time of threatened epidemic, then it would appear wise for the United States Government to establish its own station, and maintain it at its own expense, leaving the State of New York to conduct its little affairs in its own way on interior lines.

We repeat that with cholera ships daily arriving in New York bay, there is no time to lose in applying the most stringent preventive measures. There should be no dispute over minor details. The law affords ample protection. Let the people cheerfully obey it as expounded by the officers whose duty it is to execute it. The health officers have no easy task to perform, and their burden should not be made heavier by opposition either from the people or the coördinate branches of the municipal government.

TOPICS OF THE MONTH.

If, in spite of all reasonable precautions, cholera should gain a foothold in this country, the Hamburg-American Packet Steamship Company will have a fearful reckoning to make with the people. There would seem to be no excuse for such conduct as has been

manifest on the part of this steamship company. In the face of the fact that the line sails from an infected seaport, where hundreds of deaths of cholera have been taking place daily, this line has brought hundreds, even thousands, of passengers to our shores, where nothing but the strictest quarantine has prevented their carrying this disease to the remote parts of the United States. There would seem to be reason for an adequate law to prevent a repetition of such conduct in the future.

In the light of recent events, the argument in favor of a National quarantine in all the important seaports is strengthened. The quibbling over jurisdiction will then be stopped. We shall hear no more of injunctions to restrain the health officer from performing his duty. Passengers seem to be the most unreasonable people in the world. In one moment they beseech the health officer to put them ashore, and as soon as he can get adequate authority to do so, he is resisted by the residents from landing passengers; whereupon the passengers turn upon the health officer and curse him for all their woes. This happens in spite of the fact that the health officer is straining every nerve to serve the best interests of all the people. It is true that he is hampered on the one side by the very fact that he is a State official, appointed through political influence, and, on the other hand, by the fact that he has a most inordinate egotism; but this has not prevented him from attempting to serve the very passengers who now condemn him. Let us have a National quarantine, and all this petty quarrel will end.

Col. Weber, the United States Commissioner of Immigration, seems to think that there is an unnecessary alarm among the people with reference to cholera. It is all very well for a non-scientific official to speak in this assuring manner, but scientists know the history of the progress of epidemics. The germ once planted will grow its deadly fruit. It is carried westward by the tide of immigration, and, unless stopped by some almost miraculous display of human judgment, will continue to travel until it expends its forces by the stamping-out process of germ-destroying agents. Let no one feel too sure. These immigrants bring the germ in their clothing and on their persons, and in various ways it lurks around and about their bodies for a long period. The frost of Winter may serve to stay its ravishing deadliness, but with the

warmth of Spring and Summer it may be revived with all its direful force. To be forewarned is to be forearmed ; the better way would be to prevent a single immigrant from an infected or suspicious port from setting foot on our shores for a year.

The promptitude with which the Governor of the State of New York responded to the demands made for active support is commendable. The only wonder is that the National Guard was not placed on duty at once at the moment of the purchase of the property at Fire Island, and a detachment of sheriff's officers, specially sworn, should have been placed on duty. The purchase, too, should have been kept a secret until the property was securely occupied by the State authorities. It is very easy to say what should have been done in the light of after events. Let us take warning of the experience of the present, and provide against such humiliating complications in future.

The *Charlotte Medical Journal*, edited by Drs. E. C. Register and J. C. Montgomery, is a handsome addition to the periodical literature of the day. The size of the page is a little greater than the ordinary journals, being large octavo, but its type is proportionately larger, and is very pleasant to the eye. We hope our North Carolina contemporary will find ample support and remain with us during all time.

Dr. Joseph Price, of Philadelphia, has offered a prize of $100 to be awarded to the Fellow of the Medical Society of Virginia, who may present, during the session of 1893, the best essay on the history of surgery and surgeons of Virginia. Dr. Price is a native of Virginia, and thus pays a fitting compliment to the State of his birth. The rules governing the award of the prize are to be in all respects similar to those relating to the Hunter McGuire annual prize.

The *Brooklyn Medical Journal*, with commendable enterprise, published a special edition, under date of September 10, 1892, devoted entirely to the consideration of cholera. It is an official report of the proceedings of a special meeting of the Medical Society of the County of Kings, held September 6, 1892, and contains the following papers : Work in the Department of Health in

Anticipation of Cholera, and Plans for its Management in the Event of its Introduction," by John Griffin, M. D., Commissioner of Health; Bacteriology of Cholera, and Methods of Disinfection, by George M. Sternberg, M. D., Deputy Surgeon-General U. S. Army; The Hygiene of Cholera, by Albert L. Gihon, M. D., Medical Director U. S. Navy, Ex-President American Public Health Association; Practical Sanitation vs. Detention, by A. N. Bell, M. D., editor of the *Sanitarian*; Personal Experience with Cholera in China and Japan, by E. S. Bogart, M. D., Medical Director U. S. Navy; Practical Suggestions for the Management of Cholera, by Charles V. Gavatt, Surgeon U. S. Navy; Cholera Epidemic of 1848 and 1854 in Brooklyn, by Andrew Otterson, M. D., Ex-Commissioner of Health; Cholera Epidemic of 1866 in Brooklyn, by F. H. Colton, Sanitary Inspector of the Metropolitan Board of Health; The Preparation in the City of Brooklyn for the Anticipated Epidemic of Cholera of 1884-1885, by Joseph H. Raymond, M. D., Ex-Commissioner of Health; The Treatment of Cholera, by John A. McCorkle, Professor of the Principles and Practice of Medicine, Long Island College Hospital; A Typhoid Case of Cholera, by S. E. Fuller, M. D.; Pathological Findings in Cholera, by Joshua M. VanCott, Jr., M. D., Professor of Histology and Pathological Anatomy, Long Island College Hospital. This valuable group of papers ought to be carefully read by every physician, and especially by health officers and sanitarians. We have no doubt that copies can be obtained upon application to the business manager of the *Journal*, 333 Hancock street, Brooklyn, N. Y.

The medical colleges of Buffalo were both opened on Monday, September 26th, for the sessions of 1892-93. The Buffalo University began its term in the old college building, but it expects to have the new one in readiness for occupation during the Christmas season. The Niagara University starts with a promising increase in attendance, and renewed energy in its teaching faculty. The influence of the State Medical Examining and Licensing Board is to stimulate a greater thoroughness on the part of the medical colleges throughout the State with reference to the quality of their teaching, as well as to a surveillance over the equipment of their students at the entrance examination. This is as it should be, and serves to bring down the rejections by the State Board to the minimum.

The *Hot Springs Medical Monthly* deservedly roasts the *Doctors' Weekly* for purloining its paragraphs without credit. We have observed this practice on the part of the *Doctors' Weekly* for some time, and we are glad our Hot Springs contemporary has called down the King.

Personal.

Dr. Rollin L. Banta, of Buffalo, has been appointed Professor of Materia Medica and Therapeutics in the Medical Department of Niagara University, vice Dr. A. E. Persons resigned. Dr. Banta's appointment is a gratification to his many friends, and will be advantageous to the Niagara School. We predict an interesting presentation of the subjects that Dr. Banta will teach.

Society Meetings.

The American Electro-Therapeutic Association will hold its second annual meeting in New York, at the Academy of Medicine, 17 West Forty-third street, October 4, 5, and 6, 1892.

Papers are announced by Drs. George J. Engelmann, Wellington Adams, and George F. Hulbert, of St. Louis; William F. Hutchinson, of Providence, R. I.; Franklin H. Martin, of Chicago, Ill.; A. Lapthorn Smith, of Montreal, Canada; R. J. Nunn, of Savannah, Ga.; Thomas W. Poole, of Lindsay, Ont.; C. Eugene Riggs, of St. Paul; W. J. Herdman, of Ann Arbor, Mich.; D. S. Campbell, of Detroit, Mich.; G. Betton Massey, of Philadelphia; Henry D. Fry, of Washington, D. C.; H. E. Hayd, of Buffalo, N. Y.; J. H. Kellogg, of Battle Creek, Mich.; C. G. Cannaday, of Roanoke, Va.; Ernest Wende, of Buffalo, N. Y.; and William J. Morton, Augustin H. Goelet, A. D. Rockwell, Landon Carter Gray, Robert Newman, Ephraim Cutter, Frederick Peterson, G. M. Hammond, F. Van Raitz, of New York, and many others. Dr. J. Mount Bleyer will give an instructive lecture, with demonstrations, entitled, The Phonograph and Microphonograph, the Principles Underlying Them and Their Uses in the Sciences.

In connection with the meeting, there will be an exhibition of modern medical electrical apparatus, all the prominent manufacturers being represented.

The Southern Surgical and Gynecological Association appointed its fifth annual meeting to be held in Louisville, November 8th. This is found to fall on the day of the presidential election, hence the Council has wisely changed the date, and the meeting will be held Tuesday, Wednesday and Thursday, Nov. 15, 16, and 17, 1892, at Louisville, Ky. Dr. J. McFadden Gaston, of Atlanta, is president, and Dr. L. S. McMurtry, of Louisville, is chairman of the committee of arrangements. The secretary, Dr. W. E. B. Davis, of Birmingham, is planning an elaborate programme for the meeting.

The New York State Association of Railway Surgeons will hold its second annual meeting at the Academy of Medicine, 17 West 43d street, New York, on November 14, 1892. The profession is cordially invited.

The American Association of Obstetricians and Gynecologists held one of the most interesting meetings in its history in the City of St. Louis, September 20, 21, and 22, 1892. Its members were cordially received by the profession of St. Louis, and generously entertained in various ways. As the Association does not accept of hospitalities, it was obliged to decline the proffer of any general reception.

The officers elected for the ensuing year are: *President*, Lewis S. McMurtry, M. D., Louisville; *Vice-Presidents*, Edward J. Ill, M. D., Newark, N. J., and Howard W. Longyear, M. D., Detroit; *Secretary*, William Warren Potter, M. D., Buffalo; *Treasurer*, X. O. Werder, M. D., Pittsburg. *Executive Council*, Charles A. L. Reed, M. D., Cincinnati; Geo. H. Rohé, M. D., Catonsville; James F. W. Ross, M. D., Toronto; William Wotkyns Seymour, M. D. Troy; and Donnel Hughes, M. D., Philadelphia.

The following-named physicians were elected to fellowships: *Ordinary*—W. E. Ashton, Philadelphia; F. Blume, Pittsburg; A. H. Cordier, Kansas City; E. W. Cushing, Boston; W. B. Dewees, Salina, Kans.; L. H. Dunning, Indianapolis; John M. Duff, Pittsburg; W. B. Dorsett, St. Louis; Geo. F. Hulbert, St. Louis; B. M. Hypes, St. Louis; Willis P. King, Kansas City; James T. Jelks, Hot Springs; A. B. Miller, Macon City, Mo.; M. Rosenwasser, Cleveland. *Honorary*—L. Ch. Boislinere, St. Louis.

The next meeting will be held in Detroit on Thursday, Friday, and Saturday, June 1, 2, and 3, 1893.

Book Reviews.

A Text-Book of Chemical Physiology and Pathology. By H. D. Halliburton, M. D., B. Sc., M. R. C. P., Professor of Physiology at King's College, London; Lecturer on Physiology at the London School of Medicine for Women; late Assistant Professor of Physiology at University College, London. Illustrated. Pp. 874. London and New York: Longmans, Green & Co. 1891.

The physician who wishes to be in the vanguard of his profession must needs do a large amount of collateral reading upon subjects which do not treat directly of medicine and surgery. And, perhaps, no collateral branch is gaining so much importance as that of chemistry in its specific relation to the physiology and pathology of the human economy. The medical profession is much indebted to Professor Halliburton for the volume before us. It is the best and most complete volume on chemical physiology and pathology which, as yet, has appeared.

The author divides this work into six parts. The first part, covering fifty-five pages, treats exclusively of the methods of research and analysis. While the author does not attempt to give the details of analytical chemistry as they are found in volumes devoted especially to that subject, still the outline given is clear, concise, and an excellent index for those who wish to do work in the field of chemical physiology.

Part II. treats of The Chemical Constituents of the Organism. Here not only the ultimate elemental composition of the body is considered, but also the simpler and more complex organic constituents. The author also gives the properties and tests for these organic compounds. The last chapter is devoted to a brief, though excellent review upon ptomaines and leucomaines.

The Tissues and Organs of the Body forms the subject-heading for Part III. This part is an excellent one, and deals clearly and concisely with the physiological and pathological chemistry of all the organs and tissues of the body.

In the chapter devoted to Blood in Disease, an excellent review of the chemistry of progressive pernicious anemia is given.

Part IV. takes up the subject of Alimentation, is well written, and full of valuable information.

The excretions form the subject of Part V. Several chapters are devoted to the urine, and the subject is concisely, though quite exhaustively, treated.

The last part is devoted to General Metabolism. It is an excellent exposition of the subject, and is so concisely written that it must be entirely and carefully read to be fully appreciated. We recommend this volume most heartily to the careful study of every member of the medical profession.

Messrs. Longmans, Green & Co. are entitled to considerable praise for the excellent typography, and the neat and tasteful manner in which the work has been issued. J. A. M.

Transactions of the Medical Society of the State of New York for the year 1892. Edited by Frederic C. Curtis, M. D., Secretary. Octavo, pp. viii.—540. Published by the Society. William J. Dornan. Printer.

The transactions of this ancient and honorable society are always of an interesting nature. The one before us is no exception to the rule; in some respects it possesses advantages that none of its predecessors could claim. This might be reasonably anticipated, because each year evolves some newer and more interesting chapter in the history and progress of medicine; but one of the particular reasons for the excellent character of this volume is found in the fact that the young and enterprising president, together with his group of able assistants, succeeded in attracting to the meeting men who have contributed a vast amount of useful knowledge to the science of medicine, a valuable indication of which is found between the covers of this book.

The president, Dr. A. Walter Suiter, of Herkimer, N. Y., chose for the subject of his anniversary address, Public Health and Some of the Inconsistencies of the National Government. Dr. Suiter, in the course of his remarks, put forth an earnest plea for the establishment of a National health service. His argument is strong, his diction clear, and his conclusions are worthy of consideration. The address has been distributed in pamphlet form, and we trust it will be examined carefully by sanitarians and public health officers everywhere throughout the country.

The inaugural address of the president is a model in its make-up, and in the clear and forcible manner in which it deals with the several questions that pertain to the welfare of the profession within the State.

There are forty-eight distinct titles in this book, besides fifty-four pages of preliminary matter, and 129 pages, in which are recorded memorials and obituary notices, lists of officers, members, and

delegates, members of the County Medical Societies, and an appendix of new laws relating to the medical profession in the State of New York. Every progressive physician residing within the boundaries of the Empire State should not fail to obtain the annual volumes of this society, for they are a record of the rise and progress of the profession of medicine within the borders of one of the foremost states of the union, considered, of course, at this time from a medical standpoint solely.

The book shows careful editing in every paragraph, and is a model of perfection in its mechanical creation.

THE MEDITERRANEAN SHORES OF AMERICA; OR, THE CLIMATIC, PHYSICAL, AND METEOROLOGICAL CONDITIONS OF SOUTHERN CALIFORNIA. By P. C. REMONDINO, M. D., Member of the American Medical Association; of the American Public Health Association; of the State Board of Health of California; Vice-President of the California State Medical Society, and of the Southern California Medical Society. Illustrated with forty-five engravings and two double-page maps. In one handsome royal octavo volume, 176 pages. Extra cloth, price, $1.25 net; cheaper edition, bound in paper, price, 75 cents net. Philadelphia: The F. A. Davis Co., publishers, 1231 Filbert street.

In his preface, Dr. Remondino says:

Southern California climatology is quite a study; many of its meteorological results are real puzzles,—puzzles met with nowhere else. * * * For instance, one of the greatest peculiarities, or oddities, of this climate consists in the relative conditions existing between the degrees of temperature and the degrees of atmospheric humidity. As a medical visitor once observed to the writer: With a rise in the thermometer you have a double discounting diminution in your humidity, and with a fall of your thermometer, you have an equal double discount of increase in the humidity, which at once produces equability. I do not know a region of the world that is so favored.

It is easy to understand that Remondino is an enthusiast in favor of Southern California as a resort for invalids, and especially those with consumptive tendencies. Particularly does he favor its littoral region. Recognizing the fact that a variety of climate is a necessity for invalids of the same disease and temperament, he shows that the region of San Diego Bay alone furnishes no less than four characteristic localities, while at Los Angeles, Dr. Remondino has seen delicate ladies and children walk the streets without even the protection of a sun-shade, "without discomfort,

enervation, or resulting accident," when the thermometer stood 100 degrees in the shade.

Perhaps the profession will find the introduction the most interesting part of the work, it being largely a *résumé* of the various opinions of distinguished physicians relative to climatic conditions and localities for patients afflicted with phthisical, rheumatic, or other enfeebling diseases. While admitting the advantages of elevated regions in such cases, Dr. Remondino favors pure sea air. He thinks the censure bestowed upon its humidity undeserved, though he fully recognizes the danger from earth moisture, with its injurious germs and ferments.

The body of the book is made up largely of statistics, many in a tabulated form, and descriptions of the various ports of the country, with many beautiful illustrations and views in wood-cut and process printing, all bearing on the author's claim for the superiority of Southern California over all other healing and health-preserving places in the world. Whether, in his sanguine nature, he claims too much, must be submitted to the judgment of learned and experienced specialists. In any case, the book is an important and valuable addition to the medical literature of the day.

An Illustrated Encyclopedic Medical Dictionary. Being a dictionary of the technical terms used by writers on medicine and the collateral sciences, in the Latin, English, French, and German languages. By Frank P. Foster, M. D., editor of the *New York Medical Journal*, assisted by eleven collaborators. Vol. III. Fasc —minj. With illustrations. Quarto, pp. 775. New York: D. Appleton & Co. 1892.

The third volume of Foster's Dictionary carries the work forward to the word "Minjak-lagam," the definition of which is given as "A product of certain dipterocarpaceous plants, and analogous to gurjun balsam." The work is continued in the same style and under the same plan as originally begun. It is, altogether, the most comprehensive, elaborate, and correct medical dictionary which has been published in English, or, for that matter, in any other tongue in the world. It may be appealed to with the certainty, as near as anything can be certain, that the word desired will be found; and further, that its orthography, pronunciation, and definition will be correctly recorded. There are a number of excellent illustrations scattered through the volume, which serve to accentuate certain subjects, and which relieves the book from

that monotony which would otherwise pertain to such a voluminous structure.

In our notice of the first volume we stated its importance, nay, even necessity; we have not changed that opinion, and we wish to reaffirm it here and now. It is a dictionary that every library must possess, every teacher must own, and every medical practitioner who can possibly command the price of the work must make haste to possess. The substantial way in which the publishers have dressed the volumes indicates that they will stand the wear and tear even of hard usage for a long time. The profession is indebted to Dr. Foster and his able associates for the manner in which they have continued their arduous labors during the several years of the preparation of these volumes. The stupendous labor which their production involves can only be appreciated by an examination of the books. We trust that Volume IV., which will close the series, may appear with as much promptness as possible. Everyone who has purchased this dictionary, with whom we have conversed, has expressed an impatient desire to get the whole work.

DISEASES OF WOMEN: A MANUAL OF NON-SURGICAL GYNECOLOGY, designed especially for the use of Students and General Practitioners. By F. H. DAVENPORT, A. B., M. D., Instructor in Gynecology, Harvard Medical School; Assistant Surgeon to the Free Hospital for Women; Physician to the Department of Gynecology, Boston Dispensary. Second edition. Revised and enlarged, with numerous illustrations. Philadelphia: Lea Brothers & Co. 1892.

The first edition of this work, published in 1889, has been exhausted, and this new one, according to the title page, is demanded. We expressed our judgment on the book in the JOURNAL at the time of the first edition, (page 185, Vol. XXIX., 1889,) and we have no reason to modify our views which were therein uttered. The plan of the work is a good one, and, in the main, contains careful instruction that is safe to follow. We are surprised, however, to find in this revision a retention of the illustrations of that abomination, Jenison's sound. Our judgment in regard to this instrument is such as to make us distrustful of an author who would give countenance to it. It is utterly useless for any gynecological procedure whatsoever, for it is incapable of repositing any uterus that cannot be so reposited without it, and yet, in this book, three illustrations, occupying the space of a full page, are devoted to it. The author's general ideas of treatment are good, and we commend the work to

the student, who will find much valuable information between its covers. The specialist will, of course, be able to distinguish between that which is useful and that which is not in any work that may be put forth. It is a more difficult task to write a book that will be capable of imparting safe instruction to the student than to prepare a treatise that will answer the requirements of the specialist. We congratulate this author upon having measurably fulfilled the former indication.

The Pocket Pharmacy, with Therapeutic Index. A *résumé* of the clinical applications of remedies adapted to the pocket case, for the treatment of emergencies and acute diseases. By John Aulde, M. D., Member of the American Medical Association; of the Medical Society of the State of Pennsylvania; of the Philadelphia County Medical Society, etc. New York: D. Appleton & Co. 1892.

The author of this book is one who has a large experience, and is competent to present it to the profession in an agreeable manner. He has done so in this book. We see no reason why it should be called a Pocket Pharmacy, unless it be for the reason that it cannot be carried in the pocket. It is one of the most convenient reference books on the subject that we have seen, and the therapeutic index is an admirable compilation. Every pharmacist should supply himself with the work, and so should every student of pharmaceutical science. The author makes his book a plea for small doses to be administered in accordance with physiological deductions. The pharmacy of today has made it possible for physicians to use less bulky remedies than our forefathers found it necessary to employ. There is no reason why we should not keep pace with the progress of chemistry, pharmacy, and physiology in regulating our doses.

A Treatise on Practical Anatomy for Students of Anatomy and Surgery. By Henry C. Boenning, M. D., Lecturer on Anatomy and Surgery in the Philadelphia School of Anatomy; Demonstrator of Anatomy in the Medico-Chirurgical College; Demonstrator of Anatomy in the Philadelphia Dental College; Lecturer on Diseases of the Rectum in the Medico-Chirurgical College, etc. Illustrated with 198 wood engravings. Philadelphia and London: F. A. Davis, Publisher. 1891.

In this book the author attempts to present a work that is serviceable both as a text-book on anatomy and a dissector, and, of course, it is especially written for students of anatomy and surgery. We are of the opinion that it is one of the best small works, hence,

easily handled in the dissecting room. It is difficult to publish an abridgement of anatomy. The subject is necessarily one of magnitude, and can never be successfully condensed. Yet, in spite of all this, we must have a number of small works to fill a place for which this one is particularly intended. In this sense, we desire to record our approval of the work before us. The engravings are clear, and the printing has been well done, with plain-faced type and on good paper. The author states in his preface that it is not a compilation, but is the result of years of practical work and large experience in teaching. This is the only way for an anatomist to succeed when he poses in the rôle of an author. We presume this book will command ready sale at the hands of those students who really pursue their studies for the love of science.

A New Pronouncing Dictionary of Medicine. Being a voluminous and exhaustive hand-book of Medical and Scientific Terminology, with phonetic pronunciation, accentuation, etymology, etc. By John M. Keating, M. D., LL. D., Fellow of the College of Physicians of Philadelphia; Vice-President of the American Pediatric Society; Ex-President of the Association of Life Insurance Medical Directors; formerly Visiting Obstetrician to the Philadelphia Hospital (Blockley), and Lecturer on the Diseases of Women and Children; Consulting Physician for the Diseases of Women, St. Agnes' Hospital, Philadelphia; Gynecologist to St. Joseph's Hospital, Philadelphia; Editor Cyclopedia of the Diseases of Children, etc.; and Henry Hamilton, author of a New Translation of Virgil's Æneid into English Rhyme; co-author of Saunders' Medical Lexicon, etc.; with the collaboration of J. Chalmers DeCosta, M. D., and Frederick A. Packard, M. D. With an appendix containing important tables of bacilli, micrococci, leucomaines, ptomaines, drugs, and materials used in antiseptic surgery; poisons and their antidotes; weights and measures; thermometric scales; new officinal and unofficinal drugs, etc., etc. Philadelphia: W. B. Saunders, 913 Walnut street. Price, $5,00 net, cloth; $6,00 net, sheep.

There seems to be just now a tendency to dictionary making, and we are willing to record our approval of this reaction. For a number of years we were obliged to consult but one; now we may take our choice from among many. This latest candidate for popular favor has, despite its inaccuracies, many claims to recognition. It can be handled easily and referred to readily. The principal words are in display type, and the definitions in plain letters. The imperfections are chiefly with reference to pronunciation, though some are undoubtedly due to bad proof-reading. These faults will, no doubt, be corrected in future editions. The

price of the book is reasonable, and we commend it to the profession, from whose experience only can its proper status be ascertained.

Manual of Physical Diagnosis, for use of Students and Physicians. By James Tyson, M. D., Professor of Clinical Medicine in the University of Pennsylvania, and Physician to the University Hospital; Fellow of the College of Physicians of Philadelphia; Member of the Association of American Physicians, etc. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1891.

This neat little duodecimo volume of 136 pages is from the pen of an author who always has something to say when he writes, and says it well. The importance of a thorough understanding of the principles and practice of physical diagnosis cannot be overestimated, and it requires very much more elaboration than such a small volume can give to make the subject complete. But it becomes necessary to condense in many ways the literature of medicine, so as to bring it within the range of the eye of the busy man and student. Dr. Tyson has arranged this work admirably for the purpose intended, and it is printed with clear type on beautiful paper.

The Book of Prescriptions, containing upwards of 3,000 prescriptions, collected from the practice of the most eminent physicians and surgeons, English and foreign, comprising also a compendious History of the Materia Medica, List of the Doses of all official or established preparations, and an index of Diseases and Remedies, by Henry Beasley. Seventh edition. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1892.

In this small volume are arranged, conveniently for reference, a vast number of prescriptions which have been formulated by many eminent men. It contains, besides this, a list of Latin words and phrases, and an index of diseases. Taken as a whole, it may be rated as the best book of formulæ that has recently been issued. It is well known to the profession through the previous six editions that have been published.

A Text-book of Nursing, for the use of training schools, families, and private students. Compiled by Clara S. Weeks-Shaw. Second edition, revised and enlarged with illustrations. New York: D. Appleton & Co. 1892.

This excellent volume is properly named; it is the only real text-book of nursing with which we are familiar. It should be adopted in every nursing school in the land. The demand for the

second edition has not come as soon as the quality of its teaching would lead us to expect. The author is one of the most experienced women in the training of nurses, and speaks with a modest authority and a simplicity of expression that is not only delightful to read, but carries a forceful meaning that is easy to comprehend and remember. We commend the book to everybody interested in the training of nurses, as well as to every trained nurse.

BOOKS RECEIVED.

A Text-book of Morbid Histology for Students and Practitioners. By Rubert Boyce, M. B., M. R. C. S., Assistant Professor of Pathology in University College, London. With 130 colored illustrations. New York: D. Appleton & Co., 1, 3, and 5 Bond street. 1892.

A Practical Treatise on Diseases of the Skin. By John V. Shoemaker, A. M., M. D. Professor of Skin and Venereal Diseases in the Medico-Chirurgical College and Hospital of Philadelphia. Physician to the Philadelphia Hospital for Diseases of the Skin; Member of the American Medical Association, of the Pennsylvania and Minnesota State Medical Societies, of the American Academy of Medicine, and of the British Medical Association; Fellow of the Medical Society of London. Second edition, revised and enlarged, with chromogravure plates and other illustrations. New York: D. Appleton & Co. 1892. Price, $5.00.

Geographical Pathology: An Inquiry into the Geographical Distribution of the Infective and Climatic Diseases. In two volumes, by Andrew Davidson, M. D., F. R. C. P., Ed., Late Visiting and Superintending Surgeon, Civil Hospital, and Professor of Chemistry, Royal College, Mauritius. Europe, Northern and Western Asia, India, Ceylon and Burmah. Vols. I. and II. New York: D. Appleton & Co. 1892.

A Hand-book of Hygiene and Sanitary Science. By George Wilson, M. A., M. D., F. R. S., Edin., D. P. H., Camb.; Fellow of the Chemical Society; Fellow of the Sanitary Institution of Great Britain; Medical Officer of Health for the Mid-Warwickshire Sanitary District; formerly Medical Officer, H. M. female prison, Woking, and H. M. convict prison, Portsmouth. Seventh edition. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1892. Price, $5.00.

The Principles and Practice of Bandaging. By Gwilym G. Davis, M. D., Universities of Pennsylvania and Gottingen. Member of the Royal College of Surgeons, England; Assistant Demonstrator of Surgery, University of Pennsylvania; Surgeon of the Out-patient Departments of the Episcopal and Children's Hospital; Assistant Surgeon to the Orthopedic Hospital. Detroit, Mich: George S. Davis. 1891. Price, $3.00.

Transactions of the Texas State Medical Association. Twenty-fourth Annual Session, held at Tyler, Texas, April 26, 27, and 28, 1892. Galveston: J. W. Burson Co., Printers and Publishers. 1892.

A Manual of Obstetrics. By A. F. A. King, M. D., Professor of Obstetrics and Diseases of Women in the Medical Department of the Columbian University, Washington, D. C., and in the University of

Vermont, etc. New (fifth) edition. In one 12mo volume of 450 pages, with 150 illustrations. Cloth, $2.50. Philadelphia: Lea Brothers & Co. 1892.

A Manual of Organic Materia Medica; being a Guide to Materia Medica of the Vegetable and Animal Kingdoms. For the use of Students, Druggists, Pharmacists, and Physicians. By John M. Maisch, Ph. D., Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. New (fifth) edition, thoroughly revised. In one very handsome 12mo volume of 544 pages, with 270 engravings. Cloth, $3.00. Philadelphia: Lea Brothers & Co. 1892.

A Text-Book of the Principles and Practice of Medicine. For the use of Students and Practitioners. By Henry M. Lyman, M. D., Professor of the Principles and Practice of Medicine in Rush Medical College, Chicago. In one very handsome octavo volume of 926 pages, with 170 illustrations. Cloth, $4.75; leather, $5.75. Philadelphia: Lea Brothers & Co. 1892.

The Essentials of Histology. By Edward A. Schäfer, F. R. S., Jodrell Professor of Physiology in the University College, London. New (third) edition. In one octavo volume of 311 pages, with 325 illustrations. Cloth, $3.00. Philadelphia: Lea Brothers & Co. 1892.

The Student's Handbook of Surgical Operations. By Frederick Treves, F. R. C. S., Surgeon and Lecturer on Anatomy at the London Hospital. In one square 12mo volume of 508 pages, with ninety-four illustrations. Cloth, $2.50. Philadelphia: Lea Brothers & Co. 1892.

Materia Medica and Therapeutics. By L. F. Warner, M. D., Attending Physician St. Bartholomew's Dispensary, New York. Being Vol. V. of the Students' Quiz Series. Pocket size, 244 pages, $1.00. Philadelphia: Lea Brothers & Co. 1892.

An American Text-Book of Surgery for Practitioners and Students. By Charles H. Burnett, M. D., Phineas S. Conner, M. D., Frederic S. Dennis, M. D., William W. Keen, M. D., Charles B. Nancrede, M. D., Roswell Park, M. D., Lewis S. Pilcher, M. D., Nicholas Senn, M. D., Francis J. Shepherd, M. D., Lewis A. Stimson, M. D., William Thomson, M. D., J. Collins Warren, M. D., and J. William White, M. D. Edited by William W. Keen, M. D., LL. D., and J. William White, M. D., Ph. D. Profusely illustrated. Price, $7.00 net, cloth; $8.00, sheep; $9.00, half Russia. Sold by subscription only. Philadelphia: W. B. Saunders, 913 Walnut street. 1892.

Genito-Urinary and Venereal Diseases. By Charles H. Chetwood, M. D., Visiting Surgeon, Demilt Dispensary, Department of Surgery and Genito-Urinary Diseases, New York. Being Volume VIII. of the Students' Quiz Series. Pocket size, 178 pages, $1.00. Philadelphia: Lea Brothers & Co. 1892.

Principles of Theoretical Chemistry, with special reference to the Constitution of Chemical Compounds. By Ira Remsen, M. D., Ph. D., Professor of Chemistry in the Johns Hopkins University, Baltimore. Fourth and thoroughly revised edition. In one handsome royal 12mo volume of 325 pages. Cloth, $2.00. Just ready. Philadelphia: Lea Brothers & Co. 1892.

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Original Communications.

DIAGNOSIS AND SOME OF THE CLINICAL ASPECTS OF GYROMA AND ENDOTHELIOMA OF THE OVARY.

By MARY A. DIXON JONES, M. D., Brooklyn, N. Y.

Only recently has the attention of the medical profession been called to the disease known as "endothelioma of the ovary, changing to angioma and hematoma." While it has many features of great interest, we, as yet, do not understand its full import, or its grave ulterior consequences. The disease is sufficient to destroy the comfort, health and activities of the individual, and may even grow to conditions that will imperil and shorten life.

This growth is always proceeded by chronic inflammation or oöphoritis, by which process the anatomical elements of the ovary are more or less transformed into an embryonal medullary tissue. From this newly formed tissue are developed the endothelia, long branching protoplasmic bodies, filled with living matter in the shape of coarse granules and hematoblasts. These protoplasmic masses have a striking resemblance to net-celled sarcoma, and, like it, they have the power of changing into their own any and every tissue of the ovary. The endothelia are seen to be gradually transformed into blood-corpuscles and blood-vessels, and thus is formed between unchanged endothelia, a collection of blood and blood-vessels. The growth under consideration is, then, a profuse new formation of red-blood corpuscles and blood-vessels, mainly of capillary or venous nature, and at last terminates in what we know to be hematoma of the ovary. The ovary thus, in full development of the disease, becomes a blood cyst, and is usually found adherent to the adjacent organs in consequence of repeated attacks of peritonitis. As the hematoma grows and increases in bulk, a gradual thinning of the sac or capsule of the ovary takes place with the danger of rupture. Dr. H.

J. Boldt reported at the International Medical Congress, in Berlin, in 1890, a case where such a hematoma had ruptured, causing hemorrhage into the peritoneal cavity, and the patient's life was saved only by an immediate operation, and the removal of the ovary with the ruptured hematoma. Dr. Francis Foerster in his paper, Clinical and Microscopical Analysis of Twenty-five Extirpated Ovaries, mentions as the outcome of a ruptured hematoma a hemorrhage into the peritoneal cavity, or into the broad ligament.[1]

It has been stated by some authors that endothelioma of the ovary could not be diagnosticated before operation. This, if true, would be extremely unfortunate. I have studied this peculiar form of degeneration in over thirty cases, both the pathological changes in the affected organs, and the clinical condition of the patients, noting carefully the characteristics which invariably accompany a marked development of the disease. Its symptoms, as thus far understood, seem sufficiently clear and distinct to enable one to diagnosticate it with certainty. I stated in an article published in the *New York Medical Journal*, September 28, 1889:

The clinical features in this disease are so pronounced that in many instances I have recognized it on first examination, and, in every case, when followed by an operation, my diagnosis was verified. The patients all complain of a characteristic pain in the region of the ovaries, at times severe, sharp and lancinating; they have a peculiar pale, cachectic look, or the cadaveric pallor of the consumptive, and a marked emaciation. Some who are naturally strong, with a tendency to embonpoint, from the time of the development of the disease begin to emaciate—in some instances lose twenty, thirty or forty pounds. The more advanced the disease, the more emaciated they become, and the more extreme the pallor. The more the ovary is filled with this growth, the more serious are the manifestations in the system, and the more the general health, comfort, and active usefulness of the individual are destroyed.

Without knowing the existence of the disease in the ovary, or understanding its nature, we still see in the patients indications and evidences of a profound and serious trouble, and such, as in most instances, would demand an immediate operation. At first I diagnosticated all these cases as chronic oöphoritis, accompanied by some obscure pathological changes; now I am able, in almost every case, to say positively when endothelioma exists.

The first patient, in whom I found this peculiar degeneration, was a single woman, nearly forty years of age, who consulted me

1. The *American Journal of Obstetrics*, May, 1892, page 598.

In June, 1885. So great was the constitutional disturbance, without a correspondingly serious derangement of any of the vital organs, that to me it was an enigma, and a matter of earnest consideration. Though the intense inflammation of the enlarged and prolapsed ovaries did, to some extent, explain the local pain, it did not seem sufficient to account for the patient's generally grave symptoms, her cachectic appearance, the peculiar pallor, the feebleness, the emaciation, or the extreme nervousness and hysteria; nor did it seem a sufficient cause for her disturbed mental state, which latter was so pronounced, that many of her friends said "she was not right in her mind." These grave constitutional indications, accompanied, as they were, by intense local pain, made me suspect that there might be more than an inflammation of the ovaries, possibly a malignant growth. The patient stated that her first attack of serious illness was fifteen years previously, and it commenced with a severe pain in the left side of the pelvis, which gradually increased year by year, extending to the right side. Frequently the pain was "so sharp, that she screamed with agony." She had consulted many physicians, and had had a great variety of treatment; fly-blisters were repeatedly applied to the lower part of the abdomen; for nine months she was treated for "inflammation and misplacement of the uterus," pessaries were used, and they only made her worse. Subsequently she was treated for "ulceration," and five years for "uterine congestion," with no better results. The next physician, after attending her for some time, said he could do nothing more, and relieved her distress by hypodermic injections of morphia. Her last physician treated her for valvular disease of the heart; said also, "the uterus was misplaced, and bound down by adhesions." He attempted to introduce pessaries, which, as before, "gave great distress."

For some time I continued the patient under observation, and could not see how local or general treatment would cure or benefit her. As far as I could judge, the ovaries were hopelessly diseased, and all her abnormal nerve symptoms were due to reflex irritation from these organs. I so informed the patient, and told her that their removal might be necessary. Nevertheless, I commenced with a course of treatment, hoping, if possible, to save her from the necessity of an operation; but there was no improvement. At last, after consultation, it was decided to remove the diseased organs, which, indeed, for this patient, seemed to be the only safe procedure. The operation took place on June 25, 1888. I was

kindly assisted by Prof. Gill Wylie and Dr. Charles N. D. Jones. The patient made a rapid recovery, and soon was greatly improved in her general health, and in her mental and nervous ailments.

Though the patient had peritonitis and salpingitis, yet to me the most important consideration was the condition of the ovaries, since I suspected that this, probably, was the principal cause of her sufferings. The ovaries were found to be soft, flabby, and greatly enlarged, but on superficial observation there was no special evidence of disease. Morbid changes cannot always be recognized by merely surveying an organ externally, or slicing it in various directions; even cancer, in its early stages, cannot by this method be determined. Many profound pathological changes can be certainly known only by microscopical examination. I studied these ovaries microscopically in Dr. C. H. Heitzman's laboratory, and saw, for the first time, the elongated, branching, protoplasmic bodies, afterwards recognized as endothelia in a morbid change, surrounded by numerous blood-vessels containing blood corpuscles. Dr. Heitzman, with his vast experience as a pathologist, acknowledges that he had never before seen anything of the kind, as he remarked, "it gives a startling appearance"; and in August, 1885, when I was making drawings of these bodies, the written diagnosis then made under his direction was: "Net-celled sarcoma, starting from corpus luteum of the left ovary." I continued the study of this growth, and I find another drawing, made during the same month, with the written diagnosis: "Bundles of fibrous connective tissue, breaking down into sarcoma elements." Finally, we concluded that it was "an aveolar sarcoma, or a malignant form of endothelioma;" and Dr. Heitzman thought possibly the patient would not survive a year, since a large portion of the normal structure of the ovary was already destroyed and replaced by this apparently malignant growth.[1]

The second patient, in whom I recognized the same peculiar formation, was a young woman, brought to me by her mother on March 30, 1887. She was pale, cadaverous, emaciated, and cachectic, and looked as if she was far advanced in phthisis. With such grave constitutional symptoms, I was surprised to find no disease of the lungs, or organic derangement of any of the vital organs. I found a passably good condition of all the organs and organic functions, and no special trouble, except in the ovaries, which were greatly enlarged, extremely sensitive, and had a doughy,

1. It is pictured, and the case reported, in the *Medical Record*, August 22, 1886.

soft touch, which one might have diagnosticated as due to forming abscesses, except they were both alike affected, and had been in this state a long period. The patient said she had for years suffered with constant pain and distress on each side of the pelvis, and great tenderness in the regions of the ovaries. There was evidently some unusual form of disease in these organs, which was seriously impairing her general health. The more I saw the patient, the more I became convinced of this, and especially that "overmuch treatment" did not, in the least, benefit her. She had been under the care of a number of physicians and specialists, and had had long continued "local treatment," but without favorable results. As far as I could judge, nothing would restore the patient to health, or give her a chance of prolonged life, but the removal of the diseased organs, which "were enlarged into tumors," and were evidently the seat of some form of degeneration. I informed the husband of the state of affairs. He was anxious that the operation should be performed, gave his written consent, and laparatomy was performed in May, 1887. The patient made a rapid recovery, and I have reason to believe that by the operation her life was saved.

During the Spring and the following Summer I studied in the laboratory sections from these ovaries, made drawings of the same, and saw conclusively that every constituent part of the ovary was breaking down into peculiar branching protoplasmic bodies, accompanied by the formation of an infinite number of red blood-corpuscles and blood-vessels. I repeatedly assured myself of this fact, and in May, 1887, I presented before the New York Pathological Society, a specimen from this growth, calling attention to the new formation of blood-corpuscles and blood-vessels, to the crowding of many of the endothelia with granular matter and hematoplasts, the juvenile forms of the red blood-corpuscles.

At my request, Prof. Prudden, at that time President of the New York Pathological Society, took a piece from one of the ovaries, had sections of the same prepared, and mounted in his laboratory, returning me a slide, on which was written the diagnosis, "carcinoma."

I sent a slide prepared from the same ovaries to Prof. Waldeyer, of Berlin. He replied, October 18, 1887, that it was "carcinoma;" and certainly the symptoms did seem to point to the existence of this disease. Still, the new growth in the ovary, treated according to what I considered the best method, viz., first hardening in half

of one per cent. solution of chromic acid, and after staining with ammoniacal carmine, mounting in pure glycerine, showed clearly the forming and ready formed blood-corpuscles and blood-vessels. This finding, of necessity, would exclude the diagnosis, "carcinoma," as the constituent epithelia of cancer could never produce, or be accompanied by a new formation of blood-corpuscles and blood-vessels.

I returned repeatedly to the study of this strange formation; studied it in different ovaries, and its symptoms in different individuals. It was, and is to this time, continually a new revelation, and I believe there is yet much more to be found out in regard to it, and that it has a significance that we, as yet, do not understand. I said in the article above referred to: "When we look at this rapidly growing formation and the great mass of granules, the impression forces itself upon us that it may be malignant. Further investigation may prove it so. Why this growth should have the power of destroying every structure of the ovary, why an ovary should so degenerate, or what is its pathological significance? are still questions for consideration. Certain it is, that this formation is as surely accompanied with manifestations of ill-health as is the breaking down of lung tissue; and the symptoms of the two diseases are, in many respects, similar.

Even in December, 1891, when examining in one case the peculiar shaped corpuscles, I called Dr. Heitzman's attention to them, and he remarked: "It resembles spindle-celled sarcoma." Dr. Francis Foerster remarked at the Academy of Medicine, May, 1892, that the growth was "destructive and progressive."

Dr. H. C. Coe says, in the July number of the *American Journal of Medical Science*, "All agree regarding the histological peculiarities and its close resemblance, anatomically at least, to a malignant neoplasm."

I am convinced that endothelioma in the ovaries is as serious as is pus in the tubes, and equally demands an operation. Before I knew there was such a disease as "endothelioma," I recognized in every single instance that the ovaries were profoundly affected, and sufficiently altered to demand extirpation; that the disease was more serious than oöphoritis, that it was a form of degeneration that was destroying the health of the individual, and endangering her life.

Dr. Coe further says in the same journal:

It is highly desirable to know, not only if it is possible to recognize

at the examining-table an ovary which is the seat of endothelioma, but also if it gives rise to symptoms different from those of ordinary chronic oöphoritis, which form a more urgent indication for prompt removal by laparatomy.

In many instances, at least, the disease can be recognized at the examining-table. Endothelioma being always accompanied by acute and sub-acute inflammation, necessarily, the symptoms must be more marked than those of ordinary chronic oöphoritis.

An interesting feature that I observed for the first time in the ovaries of the second patient mentioned above, was that the *ova* were diseased. This possibly was the real cause of the woman's sterility, though she had, in addition, interstitial and suppurative salpingitis, either of which would have been sufficient to produce an incurable sterility; with ruined *ova*, however, there was no chance of conception.

Usually, where there is sufficient disease to call for the extirpation of an organ, it is also sufficient to destroy its physiological functions. It is not the operation that makes the woman sterile; *it* only removes a cause of danger and of suffering.

Another marked instance of endothelioma I had in the Spring of 1887. The patient had the same pallor, emaciation, and intense local pain. She exhibited symptoms of consumption, and, in the opinion of her friends, was going into rapid decline. Her constitution was so broken, and her general health so enfeebled, that she was no longer able to work. The patient was sent me by a physician of Bridgeport, who had given her much local treatment, and who wrote: "Everything possible has been done, and evidently an operation is demanded." The patient entered the Woman's Hospital of Brooklyn. She lay, day after day, suffering from this extreme pain and feebleness, looking so cadaverous and emaciated, that one would have supposed she had phthisis; but the lungs were comparatively healthy, as were all other organs except the ovaries, and these gave indication of some profound, but obscure derangement.

After consultation it was decided to remove the diseased organs, and thereby preserve the patient's strength and vital resources, to contend with, as was supposed, an incipient lung trouble. The operation was performed on May 13, 1887. The patient made an excellent recovery, was able to leave the hospital on the 24th. She gained in strength, health, and flesh, had no longer any threatened lung trouble, and was soon able to resume

her former occupation. She wrote a few months after : "It seems strange to be free from pain." And two years later, on June 14, 1890, she wrote : "I am in perfect health after fifteen years of suffering." In January, 1892, the patient was still in good health and able to work.

Almost the entire ovary of this patient was found filled with the growth under consideration ; it extended to the periphery, and was gradually invading and replacing every constituent tissue. Hematoblasts were present in abundance within the endothelioma, and the granular matter could be seen shaping itself into blood-corpuscles. In some fields of the microscope were seen the gradually forming blood-vessels, while in other places could be seen lakes of blood, without any confining walls.

The tissues around this growth are invariably found in a state of intense inflammation. The growth is preceded by oöphoritis, and produces it. This breaking down of the normal tissue of the ovary would account for patient's suffering, her great prostration, and her continued feebleness. In studying this and other cases, I saw, repeatedly, that endothelioma was not only accompanied by local pain, pallor, progressive emaciation, but also by certain nervous disturbances, and generally by profuse monorrhagia. The ovaries are usually found to be large, sensitive, and prolapsed.

In 1884, Mrs. G., 38 years of age, consulted me for continued distress and intense pain in the pelvis. She had the same symptoms, not so strongly pronounced, nor did I recognize their significance. Her menstruation was so profuse that, at first, the existence of a uterine myoma was suspected, but, finally, I diagnosed pelvic inflammation and endometritis. Treatment did not seem to improve her condition, so I requested Prof. B. F. Dawson to examine the patient. He recognized that there was pelvic and uterine disease, and advised a continuation of the treatment. This was done ; still the improvement was not satisfactory. Subsequently, Dr. C. C. Lee, Surgeon of the New York State Woman's Hospital, kindly consented to see the patient. He also considered with me the question of an operation, but we finally decided to continue treatment. There were no better results ; so that, at the end of a few months, I advised the patient to return to her home and desist from farther medical attendance.

In 1889, this patient again called on me ; five years of suffering and still growing worse ; five years more of married life and still sterile. I again took her history, and at this time, from her symptoms as above mentioned, and without hesitation, I pronounced the disease to be endothelioma. It was afterwards found that the endothelioma had changed to angioma and hematoma. The right ovary was enlarged to a blood

cyst the size of an orange, and bound by dense adhesions to the wall of the pelvis. Thus the disease had advanced to a more dangerous state, and the patient's strength was more exhaused, and her sufferings were so great she had become an opium eater. She now urged that something be done. But even at this time, and after having witnessed the disease in so many instances, yet the pallor, the weakness, and profound constitutional disturbance of this patient made me, for months, hesitate and delay, until finally recognizing that the case was growing more and more critical, I decided, even with her unfavorable conditions, to perform the operation. It was done on February 16, 1891, with the kind assistance of Dr. R. T. Morris, Dr. Currier, and Dr. C. N. D. Jones. As a further test of the diagnosis, I said, before beginning the operation : "On the right there is an endothelioma changing to hematoma ; on the left, I hope the disease is not so far advanced; and we may feel justified in leaving the uterine appendages on that side."

No sooner had I attempted, by the gentlest manipulations, to remove the enlarged ovary on the right side, than it ruptured, quantities of blood escaping into the peritoneal cavity. The ovary was transformed into a hematoma, and a portion of the wall was so exceedingly thin that it ruptured from the slightest touch. The appendages on the left were diseased, and all the surgeons present agreed that they should be removed. The patient made an excellent recovery, and in two weeks was able to return to her home in a neighboring city.

This case proves again that endothelioma may be diagnosticated from the symptoms ; that continued treatment will not cure it, and that the disease steadily progresses and becomes more and more dangerous. Further, I believe that if the uterine appendages in this patient had been removed five years previously, it would have insured to her years of more vigorous health. Leaving them resulted in no good, they were of no service, they were doing positive injury, and, finally, they placed the patient's life in peril.

In 1888, Mrs. C. was brought to me from Bridgeport, Conn., by her physician. The patient was then 26 years of age, married several years, without children. She complained of such constant distress in the pelvis, that she was compelled to walk bent over, and was not able to do her work or attend to her household duties.

Though the patient looked sick, yet at first I suggested to her physician that she have further treatment. This was to give the woman a possible chance of bearing children. It seemed so extremely sad for one so young and lately married to be deprived of all hope of the sacred privilege of motherhood ; yet, upon examination, I found conditions that demanded immediate and more radical measures. There was pyosalpinx of the tubes, on the right there was a pus cavity, and I had

good reason to believe that a large portion of each ovary was destroyed by an endotheliomatous growth, and that the latter, probably, was the special cause of her acute pain. The patient insisted upon immediate relief, and her physician likewise advised laparatomy. She was admitted into the Woman's Hospital of Brooklyn. The incurability of the diseased organs was still further demonstrated, and after some constitutional treatment, oöphorectomy was performed. The conditions were found as previously diagnosticated, and the ovaries contained, in addition to endothelium, gyromatous formations.

Gyroma, as the name indicates, is a convoluted mass, and in full development is a homogenous, firm structure, frequently occupying the whole area of the section of the ovary, replacing almost all the normal anatomical elements. It usually results from morbid changes in the structureless membrane of a ruptured Graafian follicle, but may also arise from certain changes in the arteries, such as endarteritis obliterans or waxy degeneration of the same. The first time I recognized this formation was in 1887, when I was making microscopical researches of certain diseased ovaries, and on September 9, 1887, I presented the same to the New York Pathological Society as formations of dense fibrous connective tissue, or, "fibromata." The patient, in whose ovaries gyroma was first recognized, applied at the out-door department of the Woman's Hospital on April 23, 1887.

She was feeble, emaciated, cachectic, and had all the appearances of phthisis; but from an examination of the lungs, this could be excluded. Indeed, I had to eliminate disease from every organ except the ovaries, and these I found in a state of intense inflammation, one being enlarged to the size of a small orange, and adherent. The patient was extremely nervous, in an abnormal mental state, and complained principally of distress in the pelvis. She had been married eleven years, and had given birth to seven or eight children. When admitted into the hospital she was not able to sit up, was put to bed, and suffered with constant pelvic pain, so great that she begged again and again to be relieved by an operation, and seemed grieved and dissatisfied at every delay. We regarded the patient as tuberculous, and would not then consider the operation, because of the apparently poor prospect of the patient surviving. Besides, we could not see, at that time, how the removal of the diseased ovaries could so radically benefit her general conditions, or restore to health one so seriously affected. As she continued to grow worse and her symptoms became more alarming, we decided to perform the operation, in hopes of relieving her, at least, in this respect, and that, possibly, relief of the more grave symptoms might follow. The operation took place on May 21, 1887, and proved

to be one of great difficulty. The left ovary was enlarged into a blood cyst, and ruptured on removal; the neighboring tissues were tender, and had a tendency to bleed,—even the fundus uteri oozed blood on the slightest touch. The broad ligaments tore like wet paper, tore from the cornu of the uterus, and melted under the secured ligature, so that at one time the whole left broad ligament was unfolded, countless vessels pouring forth their life-current, and in a moment the pelvis was welling up full of blood. The bleeding points were quickly secured, the clots removed, and the peritoneal cavity flushed out with an abundance of warm water, sterilized by heat.

The patient made an excellent recovery, was relieved of pain, gained flesh and strength, looked well, all appearance of phthisis disappeared, her mind seemed stronger, her mental functions were normal, and, in short, the results of the operation were in every way beyond our expectations. Her husband said she had not been so well for fifteen years. She commenced at once her heavy labors, doing the household work and washing for a family of eight persons. The gyroma, angioma, and endothelioma, with the accompanying oöphoritis, no doubt, caused in this patient the sickness, suffering, and constitutional derangements.

A more marked instance of gyromatous formations was found in a patient who consulted me in August, 1888:

There were the same symptoms: anemia, pallor, emaciation, local pain, and more or less anomalous manifestation of the nervous system. She was 49 years old, mother of eight children. The uterus was fixed on the right by inflammatory adhesions, the result of repeated attacks of peritonitis, which probably, as in the preceding case, had been induced by sepsis at her last confinement. A few years previously the patient had been told by an eminent specialist in Philadelphia, that she had inflammation of the ovaries. Since, her sufferings had continued to increase and her condition to grow worse, till her nervous system was broken down and in an exceedingly irritable state. For two months I gave her local and constitutional treatment, without any visible improvement. After the removal of the diseased organs, which had caused the local distress as well as the reflex irritation, the patient at once began to gain in health and strength, and to show an improved mental and physical condition.

In the report of this case to the New York Pathological Society, in 1888, I said: "Right ovary much enlarged, and most of it occupied by a fibroid growth, while in other portions of the ovaries there was a number of small, nodular fibromata."

The nodules were what we now understand by the name of

gyroma, and, like endothelioma, are the result of an inflammation, and probably both are produced by some infection, as sepsis at confinement, or from pyosalpinx.

Though gyroma is frequently accompanied by endothelioma, yet, as I said in an article published in the *New York Journal*, May 10 and 17, 1890, "It exists in many cases where there is no trace of endothelioma." Gyroma is an entity in itself, and, as such, may appear waxy, pigmented, or reduced to embryonal tissue; eventually, however, it changes to endothelioma. Further investigation has proved that gyroma is frequently the first stage of endothelioma. Though there is a similarity of symptoms, yet I have thought that in gyroma the nervous and mental disturbances are more pronounced than in endothelioma. I have never seen a case of gyroma in which the nervous and mental conditions were not to some extent morbid. Formations of such firmness and density must necessarily cause not only local distress, but serious reflex irritations; and they are, probably, the principal cause of ovarian hysteria.

A young woman, to whom I was called a few years ago in Ansonia, Conn., was confined to her bed, weighing but seventy pounds, nervous, hysterical, at times insane, and more than once had threatened to take her life. She was carried in her husband's arms to the Woman's Hospital, and while there had hallucinations that could not be dispelled. The uterine appendages were found to be enlarged, sensitive, and low down behind a retroverted uterus. Every evacuation of the bowels caused extreme pain and almost a death-like weakness; menstruation was accompanied by suffering, and a prostration so extreme that it did not seem possible for her feeble frame long to endure it. The patient had pyosalpinx on both sides, and pelvic peritonitis. There seemed to be no other cure than the removal of the diseased organs.

After consultation, it was decided to perform the operation, which was done in July, 1887. Dr. A. N. Jacobus was present, and assisted. The patient made a good recovery: at the end of the second week, went up and down stairs without assistance, and rode out; at the end of the fourth week, she accompanied her husband home, and that day walked as much as a mile. Subsequently her general health and mental state still more improved, and she was soon able to attend to her household duties. The ovaries, when examined microscopically, were found not only to be in a state of intense oöphoritis, but there were large gyromatous formations; which latter, no doubt, were the cause of, or certainly intensified, the morbid conditions of the nervous system.

If such disturbances accompany and are symptoms of gyroma, should these symptoms be found, it is logical to infer that gyroma

exists. It thus became an interesting question to me to ascertain whether or not, in some of my former patients who had marked hysteria, hysterical insanity, or hystero-epilepsy, if, besides oöphoritis and salpingitis, gyromatous formations were not also present. I commenced immediately to make investigations in this direction:

Miss C., a patient who was remarkably hysterical, morbid in her mental manifestations, and had more than once declared that she was going to kill herself and all her family, was brought to me by her parents in June, 1884. She had been suffering for many years, and, according to her own statement, had been attended at intervals by "thirty different physicians." In hopes of doing her good, and, if possible, curing her without resorting to an operation, I treated her continuously for four months; yet, at the expiration of this time, she was as sick as before, still had pain, and still was profoundly hysterical. I invited Prof. B. F. Dawson, and, subsequently, Prof. Gill Wylie, to see the patient in consultation. Both examined her to find out if something more could not be done for her relief in the way of palliative measures. Both decided that an operation was demanded. The father urged that it be done, and was disappointed at my delaying another month. It took place on October 15, 1884. Dr. Wylie, Dr. J. H. H. Burge, and Dr. C. N. D. Jones were present, and kindly assisted. Ether was administered by Dr. John Merrit. The patient made a good recovery, gradually improved physically and mentally.

Soon after the operation, I studied, with the microscope, the pathological specimens, and the diagnosis was subacute oöphoritis; but now, referring again to the same slides, I found, besides the focci of intense inflammation, large extensive gyromatous growths, which I then noted, but regarded as obscure pathological changes. I find, also, by referring to my book of drawings, that I had then, in 1885, drawn large gyromata without understanding what they were or knowing their significance. The written diagnosis at the time was: "Remnants of corpus luteum, inflamed myxomatous tissue, and tortuous arteries in consequence of pressure." This patient had also pus tubes, the infection from which probably caused the oöphoritis and gyroma.

Another case of hysterical insanity, upon which, for unmanageable disease of the uterine appendages, I operated in January, 1887, subsequently studied the morbid changes in the ovaries, and reported the same in the *American Journal of Obstetrics*, February, 1888, as "oöphoritis, etc." Now, from recollecting the symptoms of the patient, I surmised that she likewise had gyroma, reëx-

amined the slides, and found extensive formations of those growths, which would explain, I think, her peculiar nervous condition.

Another feature in the ovaries of the last-named patient were the diseased *ova*. The patient was only 22 years of age, yet not a single normal *ovum* was found in the cortex of either ovary. In one section I counted as many as forty-seven ova, all in a pathological state, the vesicula, the most vital part, being reduced to a waxy mass, deeply stained by the ammoniacal carmine.

If I had decided, in this case, to remove only the more diseased parts of the ovary, leaving a portion with the idea of giving the patient a chance of becoming a mother, I would have had a most disappointing result, and for the patient a second operation would have been necessary. In all the ovaries which I have removed, and all of them I subsequently studied microscopically, I do not know a single one where the person would have been benefitted by leaving a part of the organ *in situ*.

In 1883, I had a patient with hystero-epilepsy :

She was wildly hysterical, nervous, restless, sleepless, near the border land of insanity, had spasms often, as many as fifteen occurring during one night. Sometimes she was unconscious, again would spring up in bed, showing almost superhuman strength, or be doubled up in agonizing pain, the muscles being rigid, teeth clenched, and difficulty of breathing ; or, perhaps, she would crowd under the bed-clothes screaming with fright and trying to keep some imaginary being from killing her. For a long time these convulsions and tetaniform contractions were confined to the menstrual period, but later on she had every day most distressing spasms, jerking and twisting of the limbs, and horrible contortions of the body.

The patient first consulted me in October, 1882 ; 27 years old, nine years married, had never been pregnant. The uterus was found to be retroflexed and retroverted; on each side was a mass the size of an orange, fixed by inflammatory adhesions. She had been treated for years by bromides, blisters, Charcot's method, etc. So great had been her sufferings that she had become a slave to morphia ; her whole skin was riddled by the hypodermic needle. For several months I gave her local treatment in hopes of reducing the inflammation. Knowing then little of Tait's operation,[1] yet, independently and without thinking of this operation, I was impressed that these diseased masses should be

1. One of the first presentations of the subject in this country was made by Dr. T. A. Emmett at the New York Obstetrical Society, December, 1882, by exhibiting some specimens from Lawson Tait. The proceedings of this meeting were published in April, 1882. I first learned the subject in Tait's work. "Pathology and Treatment of Diseases of the Ovaries."

removed, that the uterine appendages could never be restored to health or normal activity, that they were only a source of distress to the system, and that the patient would be infinitely better without them. This seemed to me common sense and natural. For months I studied the patient's case, and became more and more convinced it was the only way to give relief or save life. At my request, Dr. Benjamin Westbrook saw the patient, and advised the trial of massage for one month. Prof. B. F. Dawson also saw the patient in consultation with me, and said that an operation should be performed without delay. Still I hesitated, put off from time to time even against the wishes of the patient and her friends, and thereby incurring their displeasure. The operation finally took place on the 12th day of the following May, Prof. Dawson very kindly performing the most of it. Dr. J. H. H. Burge, Dr. Frank Rockwell, and Dr. C. N. D. Jones assisting. The ovaries were found enlarged, the Fallopian tubes, two inches in diameter, were full of pus and adherent to and coiled sausage-like around the ovaries. Dr. Dawson said he had never seen so bad a case. He reported the operation and presented the specimens to the New York Obstetrical Society, also before his class at the Post-Graduate School.

Soon after the operation, I studied, with the microscope, the ovaries, and diagnosticated oöphoritis, etc. But now, recollecting the patient's peculiar nervous conditions, I was certain she must have had gyroma. Again examining the same microscopical slides, sure enough, there were immense gyromatous masses, and in a state of intense acute inflammation!

In a report of this case, in the *American Journal of Obstetrics*, November, 1884, I said: "The operation should have been performed in this patient two or three years before it was." A few weeks after the publication I received a letter from Mr. Lawson Tait, in which he says: "I agree with you absolutely. The only regret about all such cases is that they are allowed to go so long without an operation."

These hard, fibrous formations were, no doubt, the exciting cause of the patient's morbid, nervous symptoms. Is it any more strange, may I ask, that they, by reflex irritation, should excite serious neuroses than that reflex irritation from pathological ovaries should cause osteo-malacia? Fehling says: "Osteo-malacia is a reflex tropho-neurosis of the bones, dependent upon ovarian activity, and Thorn gives a case (*Centralblatt für Gynäkologie*, 1891, No. 41,) of a patient who had severe pains in the pelvic bones, with marked deformity, being unable to walk, and showing progressive emaciation and edema. The diseased uterine annexæ

were removed, after which the patient improved rapidly, the pains in the bones disappeared, she was soon able to walk, and a year after the operation was perfectly well. The "severe pains" and "progressive emaciation" lead one to suppose that patient also had endothelioma of the ovaries?

I wish here to emphasize that however alarming the nervous and mental symptoms may be, or however serious the general constitutional condition, yet the operation of oöphorectomy should not for a moment be considered, unless there is unmistakable proof that the ovaries are themselves seriously and irreparably diseased, and in such a state as to destroy the health, comfort, and comparative usefulness of the individual. This I have stated several times, and in an article published nearly two years ago, I said:

> I denounce the removal of the uterine appendages for any cause, neurotic conditions, constitutional disturbance, or any reason, except for incurable disease of the organs themselves; and I would not advise an operation in every case, even if there is incurable disease of the named organs.[1]

Some authors have reported good results from performing this operation for mental and neurotic ailments, still I cannot conceive that the removal of healthy ovaries will ever cure any neurosis. Normal organs can never cause abnormal symptoms, nor can their removal in any way result beneficially. As the *Medical Record*, of January 8, 1892, says: "Operations under these circumstances are founded upon equally irrational and absurd principles."

Gyroma of the ovary is a disease, and must necessarily excite abnormal nerve manifestation, by pressure, irritation, and destruction of nerve fibers, producing local distress as well as reflex neuroses. One patient who, at times, was almost insane from suffering, the condition of the ovaries caused continued and intense pain. Subsequently, I found, besides the general oöphoritis, that the Graaffian follicles were surrounded by layers of fibrous, hyaline, and inflamed cartilaginous tissues; and in these dense structures were imprisoned and compressed delicate non-medullated nerve fibers, which would explain the patient's neuralgia. This case is reported, and the imprisoned nerve fibers pictured, in an article published in the *American Journal of Obstetrics*, February, 1888. It is the first time, to my knowledge, that nerve fibers have been traced in inflamed ovarian tissue, at least, with such clearness as this specimen exhibited. The patient, after the

1. *New York Medical Journal*, May 10 and 17, 1890.

operation, was relieved and restored to health. That the nervous symptoms disappear, after the removal of such hard formations, proves that they are the cause of suffering, and of morbid, neurotic, and mental manifestations.

Gyromatous formations are illustrated in the *New York Medical Journal* of May 10 and 17, 1890. Such hard masses must produce discomfort and bodily derangements, and are probably the cause of many obscure mental and nervous disorders. In 1886, I visited La Salpétriére, in Paris, and had not only the pleasure of hearing Charcot's clinical lectures, but repeatedly walked through the immense old wards, with their hundreds of sick women, and had an opportunity of studying a number of those cases in connection with their history. Many of them gave evidence of extreme mental and bodily suffering, women whose lives were wrecked mentally and physically. I query now if gyroma in the ovaries of these sick women would not account for many of their bodily sufferings, and the abnormal functions of the brain and nervous system. Their position in life exposed them to the chances of infection.

If compressed nerve fibers are in connection with the vaso-motor system, epileptic fits may result. No doubt there are a few cases of epilepsy due to ovarian irritation; or, in a few, ovarian irritation may cause epilepsy; and this comparatively few may possibly be helped or cured by the operation of oöphorectomy. Out of a number of cases of epilepsy, or hystero-epilepsy, I have in three instances performed oöphorectomy, not, however, for the epilepsy, but because I considered that the ovaries or uterine appendages were past cure, and doing serious injury to the individual, and possibly by reflex irritation might have caused or, at least, aggravated the epilepsy. It is remarkable that each of three cases of epilepsy, which were really operated for ovarian disease, was found to have gyroma. As long as these patients continued under observation they showed marked improvement; and, probably, by continued care there might have been to each an entire restoration to health. This is exceedingly satisfactory, especially when we remember that epilepsy results from such obscure causes, and that when patients have to depend upon bromide, the Lord have mercy upon them, for a surfeit of salts for months and years often produces no good results.

Here naturally arises the question in regard to the assertion, frequently made, that oöphorectomy may cause, and in some instances has produced, insanity. I have never seen or known of

an instance; but I do recognize the fact that any great shock to the system, from surgical operation or otherwise, may disturb the mental equilibrium, the same as puerperal insanity sometimes follows difficult parturition. Kiernan (*Medical Standard*, Vol. X., No. 3,) has found 146 cases of profound mental change following operations; among them thirty-five cases after operation for cataracts. These acute types of mental affection following operations are aptly diagnosticated as "acute confusional insanity." I had one patient, a woman of remarkable intelligence, who was temporarily insane after the removal of the mammary gland for cancer, but I have never had an instance of insanity after the removal of the uterine appendages; on the contrary, I have known a number of patients whose mental conditions were greatly improved after, or, rather, in consequence of this operation.

It is surprising that these gyroma formations have so long been regarded as normal, and called corpora lutea spuria in involution, and supposed to be the cicatrization that follows the rupture of a Graaffian follicle. Leopold has finely painted plates, showing the large typical corpus luteum of a recently ruptured follicle. It is pictured the same way in all the books and has been almost universally accepted. Careful microscopical investigation proves that these bodies are the results of disease. In an article published in the *New York Medical Journal*, May 10 and 17, 1890, I assert: "What observers have termed corpora lutea spuria are evidently nothing else than anomalous menstrual bodies (gyroma) and endothelioma, changing to angioma and hematoma."

I have repeatedly traced the commencement of the morbid change, seen the follicular membrane become the seat and center of an intense inflammation, gradually growing thicker, firmer, broader, and more and more solid; inflammatory corpuscles change to extremely dense fibrous connective tissue, in which a waxy or colloid basis substance is deposited, and thus the membrane grows to a great convoluted mass, eventually spreading out to large proportions, sometimes occupying the area of a whole section of the ovary, or it may develop into a number of round, nodular, fibromata of various sizes. Often I have seen inflammation in one part doing its work of destruction while other portions of the membrane were perfectly normal. I have traced the inflammation gradually progressing, changing more and more this originally insignificant membrane till it became immensely increased in size, a hard, solid formation, irritating the surrounding structures, or

itself changing to endothelioma, and, finally, forming a dangerous blood cyst. The follicular wall is originally a fine, delicate membrane of a high refraction, and, when normal, is thrown into graceful folds and found imbedded in the ovarian stroma, and could not of itself be a source of irritation or of any disturbance in any way. I have found it thus unchanged in great numbers in the ovary of women past seventy years of age. Not one of them had formed a gyroma, the supposed corpus luteum spurium, though the women had menstruated regularly for thirty or forty years, and may have had several children. If there had been oöphoritis or salpingitis, we would have found the supposed corpora lutea vera.

Dalton says: "The vascular membrane takes the increased development by which it becomes thickened and convoluted, and tends to fill the cavity of the follicle." This describes exactly the abnormal changes that result from inflammation. He says further: "On cutting it open, the corpus lutem is seen to consist of a central coagulum and a convoluted wall." This describes gyroma changing to endothelioma. Such processes have been described and recognized by many authors as normal, whereas they are in reality the results of morbid processes, the outcome of oöphoritis and salpingitis.

163 DeKalb Avenue.

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DeLancey Rochester, M. D., President.

DISCUSSION OF LITHEMIA.

ITS PHYSIOLOGICAL CHEMISTRY.

By WILLIAM C. KRAUSS, M. D., Buffalo, N. Y.

The food supply of the body is divided into nitrogenized, non-nitrogenized, and inorganic substances. The inorganic compounds comprise water, and salts, as chlorides, phosphates and carbonates of soda, potash, calcium, etc.

The non-nitrogenized foods comprise :

1. Fats, as cream, fat of adipose tissue, etc.
2. Carbo-hydrates, as sugar and starch.
3. Simpler organic bodies, as alcohol, vegetable acids, etc.

The nitrogenized foods comprise :

1. Proteids, or albuminous substances.
2. Albuminoids, as gelatine, chondrin, etc.
3. Simpler nitrogenized bodies, as creatin, lecithin.
4. Iron-containing compounds.

The inorganic principles do not undergo digestion and assimilation, but are at once absorbed by the system.

The non-nitrogenized principles, after being digested, are more easily oxidized in their end products than the nitrogenized elements, and this oxidation once under way does not cease until it is completed. In case an increased quantity of these carbo-hydrates are present in the system, the oxygenating capacity of the blood will become exhausted, and, as a result, the more difficult nitrogenous compounds are imperfectly transformed. From the oxidation of the carbo-hydrates we obtain heat, energy, lubrication, and elements producing rotundity of form only. The excretions are water and carbon dioxide.

Among the nitrogenized principles the most important are the proteids ; in fact, they are the most important substances that occur in animal or vegetable organisms, being invariable and constant constituents of protoplasm. It is difficult to give a logical definition of the proteids. We can only say what they are composed of, and how they act in the human economy. Garrod describes them as " highly complex and uncrystallizable compounds of C. H. O. N. & S., occurring in a solid viscous condition, or in solution, in nearly all the solids and liquids of the body." Although differing from each other in physical and, to a certain extent, even in chemical properties, they, however, all possess certain chemical reactions, and are united by a close genetic relationship. The proteid constituents of the animal body are derived from vegetables, either directly or indirectly, through the body of another animal. The chief animal proteids in food are the myosin of flesh, the casein and the albumen of milk, and the proteids of egg and blood. The chief vegetable proteids are gluten, vegetable myosin, and other vegetable globulins. The animal proteids are more easily digested than those of vegetable origin. The action of the juices of the alimentary canal, especially the gastric and

pancreatic, upon the ingested proteids, is to convert them into peptones, which are then absorbed. The peptones are reconverted into proteids, and these require considerable oxygen to transform them before they can be assimilated or made part of the living organism. This process is commonly termed tissue growth, tissue repair, or building up, but alongside of it there is a destructive process going on in the cells—a "tissue waste," or breaking down. These two forces are designated metabolism. The result of the constructive metabolism, or anabolism, of the proteids means nutrition to the whole system— the production of heat, energy, muscular and glandular activity, rotundity, and constituents for the formation of the ferments. The result of destructive metabolism, or katabolism, is the formation of the various oxides, carbon dioxide, water, and certain not fully oxidized products—as uric acid, urea, etc. The discharge of the products of destructive metabolism by the air, urine, sweat, and feces, constitutes excretion. In a normal healthy body, supplied with a sufficient quantity of food, drink and exercise daily, the metabolic changes take place according to Nature's inflexible laws; waste products, the result of oxidation, are thrown off, and the system thus nourished and reinforced is able to hold its own in the struggle for existence.

On the other hand, in a body perhaps handicapped by some hereditary taint, where over-eating and over-drinking are indulged in with the consequent sedentary habits, oxidation changes of the body are lessened, uric and oxalic acids are formed to excess, and accumulating in the system, produce such derangements as calculus, gravel, gout, sclerosis of the various organs, toxic conditions.

Perhaps it would be well to study uric acid somewhat closely and see wherein lay its obnoxious qualities. It is composed of five atoms of carbon, four each of hydrogen and nitrogen, and three of oxygen. It crystallizes in colorless rhombic rectangular plates, or in rectangular prisms. In striking contrast to urea, it is a most insoluble substance, requiring for its solution 1,900 parts of hot, and 15,000 parts of cold water. It is slightly soluble in ether and alcohol. It is dibasic, forming normal urates and acid urates. The most abundant urate obtained from the human urine is the normal urate of soda. Small quantities of those of potassium and calcium also occur. The urates, like uric acid, being insoluble, precipitate when they are found in excess in the urine. The urates of lithium and potassium are more soluble than the urate of soda, and, hence, the lithium and potassium salts are often administered

to counteract the insolubility of the urate of soda. The pinkish deposits of urates often called lithates, or brick dust deposit, which are found when a concentrated acid urine stands in the cold, are composed mainly of the acid urate of soda. This deposit occurs chiefly when the urine is concentrated, as after violent exercise and consequent profuse sweating. It also occurs in concentrated urine of fever, after indigestion, joint inflammations, in certain heart and lung diseases, cirrhosis of the liver, and in catarrh of the bladder. Hence, the appearance of a sediment of urates does not necessarily imply an increased formation of uric acid, but is generally due to an increased concentration of urine.

That uric acid has no particular function in the human urine is attested by the fact that although it is a vehicle for the elimination of nitrogen, urea, which is much more soluble, is therefore better fitted for this work. In birds, reptiles, and in some invertebrates, in which the urine is solid instead of liquid, uric acid is the principal nitrogenized constituent.

The quantity of uric acid present in the urine of a healthy man varies from seven to ten grains daily. It is reduced during hunger, increased after meals. The quantity excreted on an animal diet is greater than on a vegetable diet. Free uric acid in crystals occurs in the urine of persons with a uric acid diathesis, also often in diabetic urine. It is greatly increased in the urine of leucocythemia, and diminished in most chronic diseases. It is especially diminished in gout, where, according to Garrod, it accumulates in the blood and tissues. Haliburton thinks that because uric acid is found in the urine at least sixteen out of twenty-four hours, there must be some ingredients present in the urine which prevent it from precipitating. These inhibitory ingredients are thought to be the mineral salts and the pigments of the urine. The conditions which tend to accelerate the precipitation of uric acid, as in the formation of concretions and deposits, are: (1) high acidity; (2) poverty in mineral salts; (3) low pigmentation, and (4) high percentage of uric acid.

Whether uric acid exists in the blood or not, is a mooted question. Porter believes it cannot, because it would immediately join with the alkaline compounds and become a urate of some form. Roberts is sure that uric acid is not in the free state, because it is chemically impossible for uric acid to subsist in the alkaline blood serum without entering into combination with the bases contained in it. Garrod believes that uric acid does exist in the

blood in a free state, and has proven it by various tests. His experiments are open to the criticism that many active chemical agents were necessary in the test before any signs of uric acid were evident. His opponents declare, therefore, that the acid was probably manufactured artificially during the different stages of his experiments. Von Jaksch[1], who has lately examined the blood of 109 individuals, found no traces of it in nine healthy persons, nor in cases of typhoid fever, nervous affections, diseases of the liver and gastro-intestinal tract, except when anemia coexisted. On the other hand, it was present in those diseased processes in which oxidation was disturbed, either directly, as in affections of the lungs, as pneumonia, or indirectly, as in anemia, in which the oxygen-carriers are deficient. Haig has no doubt as to the presence of uric acid in the blood, and affirms that the amount varies according to the degree of alkalinity, and all circumstances which increase this are associated with an increase in the amount of uric acid.

SEAT OF FORMATION.

Landois and Sterling believe that it is formed outside the kidneys. Halliburton has two theories as to its formation. One is, that it is formed, like urea, in the other tissues, especially the liver and spleen, and is excreted by the kidneys. The other is, that the kidneys are not only the seat of excretion, but also that of formation of uric acid. Minkowski regards the chief feat of formation to be the liver, the result of synthesis of ammonia and lactic acid. Horbaczewski believes the spleen to be the organ of uric acid formation. Garrod holds that the kidneys are concerned, not only with its secretion but with its formation. Ebstein, on the other hand, thinks that it is chiefly produced in the muscles and bone marrow. Cadge, Riggs, Granville and Kirke are inclined to the theory that, as the hepatic cell has the power to form bile, so the epithelial cell of the renal tubule, by the metabolic activity of its protoplasm, has the power to produce some, if not all, of the urea and uric acid found in the urine. My own belief would coincide with Ebstein's, that it is formed largely in the muscles, because here metabolism is most active.

The dangers of an excessive amount of uric acid and its compounds in the human system seem to be:

First, on account of the great insolubility of this acid, it is prone to precipitate either in the bladder as gravel and calculi, in

1. Osler, p. 731.

the joints, kidneys, on the heart valves, vocal cords, about the cartilages of the ears, eyelids, etc., as gouty concretions, or along the tendons, as in some rheumatic troubles.

Second, owing to its irritative qualities, a slow form of sclerotic development takes place in the various organs, especially in the arteries, kidneys, liver, and central nervous system, calling forth such affections as arterio sclerosis, contracted kidney, and system diseases of the spinal cord.

Third, on account of its large contingency of nitrogen, it produces toxic conditions, particularly of the nervous and digestive systems.

To designate a certain group of vague, bastard symptoms, thought to be the result of some liver disturbance, Murchison suggested the term lithemia. Since then, symptoms arising from all organs and tissues of the body have been placed in the same category. Flint had previously described the same clinical picture under the head of uricemia. More recently Von Jaksch designated it as uricacidemia. Gray suggests lithoidosis for this condition, while those of us unable to keep pace with such names call it simply uric acid diathesis, or if to puzzle the layman, lithiasis, or lithemia. Tersely stated, then, lithemia means deficient oxidation of the proteids, imperfect or retarded metabolism, and the excessive formation, accumulation, and absorption of the katabolins, especially uric acid.

If I have failed to make my subject clear, I have the satisfaction in knowing that there is authority upholding me. Let me quote from Osler's recent work on the Principles and Practice of Medicine, page 733: "In the present imperfect state of knowledge, it is impossible, with any clearness, to define the so-called pathology of uric acid diathesis."

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CLINICAL ASPECTS OF LITHEMIA.

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In compliance with the suggestion that discussion should be limited to those pathological disturbances described by Murchison and others as mild or irregular forms of gout, I shall avoid any consideration of true gout, and accept the term lithemia as applied to a group of morbid phenomena, supposed to be allied to gout in origin, but distinguished from acute or chronic gout by the absence

of the classical signs of that disease. The literature of the subject is extensive and, at present, it has become the fashion to carelessly include many puzzling morbid conditions previously belonging to the no name series of disease, as evidences of lithemia. In a general way, the condition is recognized as similar to gout by its manifestations and assumed causation, but receives a different name to mark the contrast in clinical appearances. A suspiciously large number of slight departures from health are said to be caused by the presence of an unknown quantity of uric acid in the blood. Obviously, this common conclusion should depend upon the detection of the poison in the blood and the knowledge of a direct relation between its morbid action and effects. Unfortunately, little has been attempted or accomplished by scientific investigation in this direction. That the amount of uric acid in the blood is increased during an attack of so-called lithemia, has never been properly established. Haig and other enthusiasts assume its presence with remarkable indifference to scientific accuracy. Jaksch and Pfeiffer have failed to find traces of it in the conditions described as lithemia and rheumatism, and have observed the most notable increase in pneumonia, leukemia, and disorders associated with cyanosis, where carbon dioxide had accumulated in the blood or oxygen was diminished. Investigation has, at present, not been sufficiently extensive to justify the conclusion that the term lithemia rests upon a scientific basis. The belief, therefore, that a group of complex morbid phenomena are due to a certain toxic and irritating product, whose presence in the blood cannot be determined, must rest largely upon the results of clinical observation.

Careful study of the older writers reveals the pertinent fact that inquiry did not extend beyond the assumption of a clinical resemblance between the evidences of gout and lithemia and the probability of a common theory of causation. Whether Garrod's theory of the causation of gout is correct may be still open for controversy, but the apparent association of uric acid with destructive lesions forms striking proof entirely absent in lithemia. If it be admitted that uric acid may be present in the system in quantity which for some reason eludes detection, and yet sufficient to cause the condition called lithemia, we are prompted to ask, from a clinical standpoint, are we at present able to state authoritatively that any of the accepted disturbances attributed to uric acid are due to that agent alone? The toxic effects of uric acid have never, so far as I know, been experimentally demonstrated. A poison introduced into the

system stimulates or depresses functional activity, according to the dose, and presents a picture quite characteristic and invariable.

Allowing a large field for idiosyncrasy, etc., we find that no other toxic element is assigned so huge and varied a *rôle* as the obscure agent, uric acid. Poisons rarely act alone, but produces mixed toxemia by disturbing functions and their interdependence. Uric acid is probably the result of interrupted or incomplete metabolism, and the symptoms of toxemia are usually manifest during a period of mal-assimilation. Progress in pathological chemistry is rapidly explaining the important part played by leucomaines and ptomaines at this time, and we have yet to learn how to differentiate between their manifestations and those often ascribed to lithemia. Many of the digestive disturbances described as lithemia in origin by Murchison and others are now considered as symptoms of anto-infective toxemia, presumably complex. Some stress is laid upon the augmentation of urates in the urine, and deductions have been drawn in the laboratory which are, as usual, not borne out clinically. Some authorities claim that an increased amount of urates or uric acid in the urine is evidence of a pathological surplus in the blood, and others take the opposite view.

One fact must remain undisputed. At times the urine is loaded with a sediment of lithates which is indicative of disturbed digestion and faulty metabolism. What relation, then, does lithuria, evanescent or chronic, bear to lithemia? Frequently the two are not associated. It is not uncommon to diagnose tentatively certain ailments, as the so-called lithemic headache, and watch in vain for the appearance of uric acid or urates in increased amount in the urine. It must not be forgotten that the amount of urinary water passed in a given time may lead to false conclusions in estimating the amount of sediment. We find lithuria most pronounced in conditions characterized by pyrexia and lack of oxidation. Particularly pneumonia, rheumatism, acute diseases with high temperature, and wasting diseases. What proportion of the symptomatology of these affections is contributed by uric acid cannot be defined, but we rarely perceive the form of toxemia which cannot be otherwise explained. As an example, the toxines of pneumonia, and those probably active in other acute affections, accompanied by fever, may produce the effects previously assigned to lithemia. There is no room for doubt that lithuria may exist with no discomfort whatever, and sometimes the complaint is only of local irritation. When lithuria is coexistent with or follows an

attack of illness, I should accept it as an indication of perverted function, the symptomatology, however, to be studied by considering other factors in disease. After some study of this subject, one is apt to reach the conclusion that the term lithemia has a vague meaning, and is much misapplied ; that the accurate diagnosis of lithemia, as we understand it, is impossible ; that we are in ignorance concerning the toxic action of uric acid in these ill-defined cases, and that it is difficult or impossible to decide that any phase of toxemia is lithemic in nature. But the literature abounds with myriad forms of diseased action ascribed to this causative agency, and we have unwittingly assumed the anomalous position of referring frequently to a condition recognized clinically as lithemia when the diagnosis is incapable of scientific verification. Admitting that diagnosis must be largely conjectural, we are led to ask if the evidences of lithemia are sufficiently distinctive to be grouped under one head, and what particular clinical aspects belong exclusively to this condition ? In the course of time and experience, clinical observers have marked a relationship between certain signs and symptoms and gout. They have come to be known as premonitory or incipient indications of that disease, and belong, when properly identified, to its natural history. The error is revealed in the attempt to extend the number of these manifestations, and collect many indistinct and dissimilar conditions under the term lithemia. Perhaps the mistake may not be as apparent in England as in the United States. Here gout is rare, while lithemia seems to be very common. I am inclined to believe that an English specimen of lithemia must be of a more vigorous type than those displayed here.

Most of our ideas upon this subject have been imported and accepted without reflecting upon the essential differences in people, mode of life, and surroundings. The plethoric type is rare in this country, while the anemic is common. Both, however, are usually examples of indigestion, one suffering from non-elimination and the other from incomplete preparation of food for assimilation, and neurasthenia. An American writer finds great difficulty in distinguishing what is called lithemia from neurasthenia and the manifold forms of indigestion. Some who diagnosticated lithemia with facility some years ago, are now wondering how they did it. To express a personal opinion, I believe that most cases diagnosticated as lithemia, not gouty in character, properly belong to the domain of neurasthenia, overwork, and disturbance of digestion.

If lithemia were regarded as a symptom or secondary manifestation of faulty metabolism, its nature might be better appreciated and the danger of mistaking cause for effect might be removed. Still, the fact that one chemical compound in the interrupted chain of the chemistry of nitrogenized material is, in all probability, not alone responsible, will leave a puzzling problem for further investigation. In discussing the clinical features of lithemia, the question of the influence of heredity seems to be of great importance, especially from a diagnostic standpoint. A person is said to inherit the lithemic diathesis. These patients are principally afflicted by incompetent digestive organs, which may rebel early or late in life. Any excess or errors in diet may produce a disturbance of digestion, sometimes characterized by a heavy urine and other symptoms of lithemia. They are usually unable to eat sweet or starchy foods, or drink alcoholic stimulants, without unpleasant consequences. Sometimes the condition is present in infancy or childhood, and is displayed by the concentrated urine loaded with lithates. Often, however, the urinary water is diminished in quantity, and changes in appearance after a free supply of water or the administration of a mild diuretic. As an indication of a diathesis, I consider this occurrence in childhood as much exaggerated. The inherited tendency is often associated with neurasthenia, melancholy or irritable temperament, and belongs most frequently to intellectual people or brain workers, the offspring of parents who have indulged in excesses of vicious enjoyments or mental work. The tendency may be acquired by sedentary life, bad surroundings, improper diet, and abuse of the digestive organs. Often it seems to be of nervous origin, following much mental labor or distress, and lack of proper rest. The diathesis, then, seems to be a liability to develop imperfect digestion and assimilation, and the attacks may be frequent, ephemeral, more or less constant, or at long intervals. The common time is during the Winter or, more especially, the late months when Spring is approaching. It has been surmised that uric acid accumulating during the Winter is stored up in the system somewhere and escapes later into the circulation to be eliminated. It is more probable that trying weather, lessened exercise, social pleasures, and greater mental exertion, tend to lower the general health and resistance, and finally invites functional derangement. Weather and climate certainly bear a decided causative relation, and patients are apt to suffer more during a rainy, cold season, or when humidity is high.

Attacks may be averted or shortened, many times, by change of climate and scene. They are announced as general or local, acute or chronic. Usually they are not persistent, but follow periods of good health. The interval depends much upon the habits of the individual and his caution in keeping general health up to the standard. In acute attacks, the symptoms are those of indigestion and toxemia, as a rule. After considerable study of this variety of lithemia, I have reached the conclusion that it cannot be distinguished from other forms of acute indigestion, and especially that condition which has been called a bilious attack. Some suffer readily from an error in diet who never display other symptoms of lithemia, and the true nature of so-called lithemic dyspepsia will only be solved by a more careful examination of the steps in digestion. The other manifestations are confined almost entirely to the nervous system, mucous membranes, and skin. Neuralgia generally affects the intercostal and scapulæ nerves, and seems to follow the rules laid down by Austie. I do not recall having seen a case where other conditions, such as nerve tire or hunger, did not assist in explaining the causation. Sciatica and lithic acid headache, in the form of migraine, are occasionally associated with other signs of the gouty vice called lithemia. In view of our lack of knowledge of these particular affections, such a belief is not surprising. I recall a case of sciatica, diagnosticated as distinctly lithemic (how I know not), which refused stubbornly to yield to any treatment based upon that idea, but recovered after rest, forced feeding, and electricity. Myalgia is cited very frequently as lithemic and, again, rheumatic. Perhaps the most marked feature of the diathesis in a mild form is the tendency to congestion and inflammation of the mucous membrane, particularly the respiratory and urinary tract. Certain individuals take cold very easily. Many times the previous history is an account of loss of sleep, excesses, late dining or irregular meals, but we meet patients who have observed the rules of health and still suffer from subacute exacerbations in which it is impossible to effect a cure without a change of climate. Laryngologists have described a form of pharyngitis which resists local treatment and is evidently a local manifestation of some general disturbance. It has been called gouty or lithemic pharyngitis. Alkalies are most beneficial, but their employment is based upon clinical results. The urine, in these cases, rarely shows any departure from the normal, unless the affection is accompanied by fever. Retraction and subacute inflammation of the gums are explained as lithemic

in origin. Aside from those cases caused by bacterial infection, there remain others apparently due to acid secretions and malnutrition. To accept lithemia as a cause, is to believe that uric acid encourages malnutrition and decay and assists in preventing proper assimilation. In regard to the complications affecting the urinary apparatus, there are two positions stoutly maintained.

That uretritis may be excited by the presence of uric acid in the blood, according to the theory offered to explain the peculiar inflammations of the upper air-tract, or by the direct irritation of uric acid in an acid urine. Phosphaturia and evidence of a preceding gonorrhea must be excluded. Undoubtedly, cases occur which are not incited by other causes so far as we know. During the past three years I have seen several cases of purulent uretritis, quite severe and prolonged in character, where repeated examination for gonococci and other forms of bacteria have failed to detect them, and slight attacks of simple uretritis are not uncommon. Occasionally, uretritis occurs during attacks of typhoid fever, pneumonia, rheumatism, and other diseases where the urine is scanty, acid, and loaded with sediment. Gonorrhea in a gouty patient is usually prolonged and intractable. For the past two years I have had under observation a patient who is attacked once or twice each Winter with tonsilitis and much mental and physical disturbance. The fever runs high, and after two days the urine is loaded with urates to a remarkable degree. Then follows a violent inflammation of the neck of the bladder and urethra. I have also seen one case where uretritis, non-specific in character, always accompanies a cold. There is an undoubted relation between the so-called gouty sore throat, congestion of the larynx, bladder and urethral troubles, and affections of the skin, particularly urticaria of the miliaria form, and eczema. They are sometimes associated with the gouty vice, and are evidently due to some irritating or toxic element in the system, which either acts directly or by affecting nervous mechanism. These cases, however, accompany exhaustion, indigestion, and general impairment of function, at times, and only yield to efforts directed to increase general tone. It is well to eliminate, particularly, congestion and relaxation of the mucous membrane, which is associated with vicious habits and consequent depression of general tone. Again, cases apparently lithemic do not respond to antilithemic treatment, and it must be remembered that toxic properties not understood may be actively at work, or the condition is one of many phases interblended. Of the chronic

forms I shall allude only to endarterits and the cirrhotic kidney. Calculi and gravel are better considered at another time. Patients undoubtedly gouty develop these lesions, and it is probable that uric acid is one of the poisons which produces them. This has not been definitely established, however. Unless the patient is distinctly gouty, we are not in a position to affirm that connective tissue hyperplasia is often associated with, or the result of, so-called lithemia. There are serious objections to the term gouty kidney. Enderitis and the cirrhotic kidney do not follow or accompany the lithemic state in a sufficient proportion of cases to warrant the fear of those alarming terminations. Clinical experience, attention to history, and *post mortem* observation fail to support the close connection which some authors try to establish, and to recognize, clinically, the causes of these affections is extremely difficult while their pathology is so little understood. That lithemia produces the vaso-motor disturbance in the form of high tension which sometimes precede these lesions, is purely conjectural. If it be believed that vicious matter and waste products bear an etiological relation to these affections, a method must be devised to distinguish the part played by uric acid and define its importance as a member of a group constantly growing larger. You will perceive that many clinical features of lithemia, mentioned in the literature, have been omitted. I have selected only those which were capable of some definition. Some points may bear repetition in dealing with the question of diagnosis, which hinges largely upon a discrimination between our understanding of gout and lithemia. They are almost hopelessly confused by authorities. If we regard lithemia as a suppressed or obscure form of gout, there is little need of an additional term. The controversy will then arise as to the propriety of including so many conditions under the head of the protean aspects of gout, with so little clinical or scientific evidence to warrant it. The term lithemia, used in a separate sense, may promote utility, but discourages inquiry. Considering then, lithemia as a distinct group of affections, allied to gout in an inexplicable way, we must distinguish them from the manifestations accompanying true gout and occurring with the paroxysms or during the intervals between attacks. Under the term lithemia are grouped the obscure conditions not distinctly gouty, and they are so distinguished by writers. Yet the diagnosis is made to depend almost entirely upon the presence of the gouty diathesis and the history of gouty vice. Personally, I am very skeptical in

regard to the diathesis as displayed in connection with those manifestations attributed to lithemia, and do not believe that much can be gained by discussing an ill-defined thing, called diathesis, which is a combination of the effects of a predisposition, and cannot be recognized until they are perceptible as morbid phenomena of the disease itself. We conclude that a person has a tendency to certain attacks after he has demonstrated it, and to decide upon the cause demands a consideration of the circumstances which might promote such morbid action. The more closely the evidences of lithemia resemble those of gout, the easier the diagnosis, and it is difficult to state that a patient is lithemic unless he is distinctly gouty. At present, the diagnosis of lithemia is necessarily a matter of individual opinion, and there is danger of viewing this subject through a pinhole and losing sight of the pertinent fact that the condition, when capable of recognition, should be regarded as a symptom. Of late it is becoming apparent that the examination of the urine has been assigned too important a place as an aid in diagnosis. Haig, in his recent book on Uric Acid, which is chiefly interesting and amusing as an illustration of careless statements and plausible theories, insists upon the importance of determining the relative quantities of uric acid and urea, a suggestion which seems to have merit, but subsequent observations have failed to secure his novel results.

Treatment designed to assist in eliminating uric acid consists of the use of alkalies and alkaline waters, principally lithia salts and phosphate of soda. Recent investigations seem to show that the action of the lithia salts, as solvents of uric acid, has been very much overestimated. The consensus of opinion at present seems to be that soda salicylate is the most efficient agent. Drinking large quantities of water to flush out the system and dilute the urine, promoting free perspiration and proper action of the bowels, are important. One of the best cathartics for the latter purpose is calcined magnesia alone, or after a cathartic pill. Further production should be checked by denying food, or supplying a diet easily digested, which will depend largely upon the patient's lack of appetite or craving. Plans of diet have been devised to prevent attacks of lithemia, formed upon the theory that uric acid is elaborated because the last step in preparation for elimination is omitted, owing to the absence of sufficient oxygen to transform it into urea. Two diets are recommended; one composed of albuminous food and the other of carbo-hydrates. To state the claims of each seems

unnecessary, as this matter has been much discussed. Clinically, we find that the diet must be suited to the case, and we cannot follow strictly any absolute rule. A mixed diet and avoidance of obnoxious materials, with the caution to eat sparingly, is more often rational. Proper and systematic exercise is of most emphatic importance. Advice in this direction is, in many cases, all that may be desired. The best method of administering oxygen is to increase the depth and number of respirations by exercise in the open air, and assist elimination at the same time. Patients can obtain all the oxygen required if there are enough red blood corpuscles to receive and carry it without inhalations. There is no sure method of treating lithemia, or the conditions which resemble it. One thing is certain : it rarely exists alone, and indigestion, neurasthenia, and other associated conditions should be remedied according to the particular indications, which differ in each case. More explicit directions for treatment are readily found in the text-books, and their value will vary with the ideas of the reader. In this rough paper I have endeavored to touch some of the perplexing questions which are of clinical interest, and have expressed with pardonable frankness, I trust, some opinions and conclusions which are at variance with those generally held. Perhaps they may be regarded as extreme, but they are intended to arouse discussion.

DIGESTIVE DISTURBANCES IN LITHEMIA.

By CHARLES G. STOCKTON, M. D.

In May last, I had the honor of presenting this phase of the subject of Lithemia before the Association of American Physicians, at Washington, and also before the Central New York State Medical Association, at Syracuse, and, therefore, I cannot promise the Buffalo Academy of Medicine anything on the subject which already they may not have read or heard.

The position taken on the relations existing between the digestion and lithemia may be expressed, perhaps, better by quoting the definition given in a previous paper, namely : Lithemia is an auto-infection occasioned by imperfect primary digestion, usually arising in the stomach ; and the failure of this organ is the result of too feeble innervation in those whose lives are relatively sedentary, and whose drafts upon the nervous system are so great as to induce appetites proportionately too large for the physical activity of the organism.

As to this definition, it should be explained that it is conceded that those who suffer from a gouty diathesis, more frequently than others, may be affected with lithemia under the given conditions.

This statement I desire to emphasize, that lithemia is not gout, either acute or latent, typical or atypical, but it is an auto-infection, an auto-intoxication, and the most offending substances that the lithemic has to contend with are by no manner of means uric acid and urates. Just what the peculiar toxic substances may be which give rise to those curious symptoms, referable to almost every function of the body, it is not possible to say, notwithstanding the excellent work done in this direction by Brieger, Bouchard, Gautier, Vaughn, and others.

To assume that this toxemia, which we call lithemia, comes alone from imperfect primary digestion, would be going too far. To begin with, there must be the tired nervous system, the diminished muscular and glandular activity which are so commonly seen in the brain worker.

With this condition goes imperfect oxygenation, and still the patient does not suffer from the marked symptoms of lithemia until the primary digestion fails.

I am aware that this position is a somewhat novel one, and that it is likely to be attacked, but it is a position which I have reached after a somewhat long and careful study of this subject, and after experience which has led me to change the opinion which I formerly had. The reason that the primary digestion has not been held more responsible for the lithemic attacks, is because the patient frequently makes no complaint of indigestion ; in point of fact, one may suffer most seriously from gastric or intestinal fermentation, resulting in the production of toxines of a more or less disturbing character, without producing any distress which the patient refers to his digestive tract. It has been found that victims of lithemia are relieved by an albuminoid diet in many instances, and yet he would be a hardy prescriber who would advise his gouty patients to live upon meats. Now, the reason that albuminoids so often agree with the lithemic is because these substances are less likely to give rise to fermentation in the alimentary canal.

In some instances, albuminoids do not relieve the lithemic, and then it will be discovered, upon precise examination of the gastric contents, that the proteids are not readily digested, and that they undergo putrefactive changes, and thereby lead to toxemia. In such instances the withdrawal of albuminoids is followed by a

relief of symptoms. The proper treatment of lithemia, therefore, should be the rational management of the digestive apparatus. By this it is not meant to imply that the local treatment of the stomach, by medicaments, lavage, electricity, or other methods, should necessarily be resorted to, for very frequently it is found that the best management for indigestion is to send the patient out of doors, in some dry and sunny place, and require him to exercise in some way, which will lead to exhilaration of the nervous system and stimulation of the lymph and blood currents. To be dogmatic, I should say that "houses" produce most cases of indigestion. Do away with houses, and men must become active where they are now sluggish, and slow where they are now active. It means that they must use their muscles and their lungs, and not so much their nerves. This, it will be seen, is precisely the line of treatment which experience has shown to be the most useful in the treatment of lithemia. Lithemics all recover if they lead active lives in the dry, sunny, and open air, and so, also, do dyspeptics, unless the digestive organs have become so dilapidated by long exhaustion that structural disease is brought about.

Some one may remind me that gouty patients also improve by this manner of living, and Abernethy's epigram may be quoted, that the cure for gout is to "live upon a shilling a day, and earn it." Yes, it is undoubtedly the proper management for gout. By improving oxygenation we lessen the amount of uric acid in the blood, and gout is prevented.

I am quite prepared to believe the statement which I once heard made by Dr. Gardiner, of Glasgow, that the appearance of gout in Scotland followed the establishment of the carriage as a common convenience, but I should like to add to this, that the more common use of dark meats has had a share in producing this disease, and that while Gardiner's explanation of the cause of gout is true, Abernethy's treatment of it is equally true.

Now, in this country, it seems to me that the treatment of lithemia should consist, first, in requiring a liberal amount of pleasing exercise in the open air, in a dry climate and in the sun. Second, to restrict the diet to such articles as are most easily digested by the individual under treatment. There should be no special rules save that those foods which disagree should be avoided. Third, the selection of these foods is not to be determined by the sensations of the patient alone, but if the symptoms continue, the stomach contents should be withdrawn and examined with sufficient

frequency to discover how digestion is progressing, and what foods are giving rise to the disturbance. It will rarely be found necessary to resort to other medicaments than those required for correcting a slow digestion, and in this way the amount of alkalies and purgatives which will be required to make elimination comfortable and successful will be very small. Where it is impossible to observe these rules, where, for instance, patients are unable to exercise, or unable to live in a dry and sunny place, the treatment will resolve itself more particularly into the management of the digestive tract. It may be possible by this alone to procure relief. In some instances, however, and particularly in those who actually do have the gouty diathesis in addition to lithemia, it will be found necessary to prescribe remedies which favor elimination. Of these the alkalies are, unquestionably, of the greatest importance, and their effects should be furthered by liberal potations of pure water. The still waters are better than those highly gaseous. And one should not be satisfied with applying the water within ; it should be as freely applied without. The daily bath, if possible the cold bath with vigorous friction thereafter, is a good thing for the lithemic.

436 Franklin Street.

DISCUSSION.

Dr. J. W. Putnam : The three papers just read are of great value and interest. It is important that every now and then the profession should review an old subject, and see just how and where we stand today. Old views are constantly being modified. In two, if not in all three, of the papers, mention was made of lithic acid in the blood. This was at one time taught, but it is now generally accepted that it is not found free in the blood.

In considering lithemia, I have always believed that there were cases in which the cause was, as laid down by Dr. Stockton, a faulty primary digestion ; that the cases were best treated according to the rules of Dr. Stockton. I also believe there is another large class of cases in which the fault lies in a faulty disassimilation. These cases are to be treated with proper diet, exercise, massage, deep inspirations, and baths.

Many of the cases are anemic, and, in addition to the usual treatment, must have iron. Routine treatment in lithemia, I believe, is sure to result in an unnecessarily large proportion of failures.

Dr. H. E. Hayd : We are really discussing indigestion, and it matters not whether you call it lithemia, oxaluria, hypochondriasis, or

many other functional troubles, they still represent faulty digestion and assimilation of food. And if we accept, as most scientific men do, that these troubles are due to a want of oxygenation of certain of the nitrogenous elements of our food, then we can understand how an excessive amount of animal food brings about this condition, and particularly if there be present some peculiarity of temperament—like the so-called gouty or rheumatic diathesis—which might be represented in the individual by a deficient digestive capacity for azotized foods. Nor does it concern us whether free lithic acid exists in the blood. The treatment of that group of symptoms which we look upon as lithemic is *oxygen*, which is best taken in the shape of active exercise. By this means the health of the whole organism is increased, and oxidation is better performed, and the various emunctories of the body eliminate their effete matters more readily. I have ceased to prescribe pepsin, drastan, pancreatine, and other ferments in these cases, as I do not believe that there is present in these persons organic changes of the stomach necessarily, but that this condition is better explained upon the grounds of hepatic torpor, resulting from indolent habits and an over-indulgence of rich foods and spirits. One would expect that vegetable foods would do best in these cases, but I don't believe it is well to enforce any special or rigid form of diet, as I have often seen vegetable foods cause so much flatulence, inaptitude for exertion, and discomfort, that exercise, which was most desirable, could not or would not be taken. And, on the other hand, I have seen many of these cases relieved by the Salsbury treatment, which consisted in the ingestion of large amounts of hot water and a free supply of raw or partly cooked animal food,—beefsteak. The physiological chemistry of this lithemic condition is interesting, and, I believe, the symptoms are much the same, whether we find an excess of urates in the urine as a precipitate after it has stood in a vessel a few hours, or whether we find free uric acid crystals. Yet, I believe, it is a more fortunate thing when there exists the excessive acid phosphate of soda to keep the uric acid in solution, as the passage of free uric acid crystals causes more bladder and urethral irritation.

Dr. F. P. Vandenbergh: I spent one whole hour this afternoon trying to explain to a lumberman what lithemia meant, and it was a difficult thing to do. We start with the albuminoids of the flesh series. These are digested imperfectly, and, as a result, we find uric acid in the urine, along with creatin, creatinine, xanthine, and other toxines. The important point, it seems to me, is, where and how do these changes take place? I don't know that anyone knows. Uric acid is not found in the blood, but is found in the urine.

The ingestion of large quantities of water flushes out the creatinine, xanthine, etc., hence it is important to bear this fact in mind in treating lithemic patients.

Dr. Allen A. Jones: I have been very much interested by the three classical papers read this evening. Dr. Krauss mentions peptone as being the final product of the gastric digestion of proteids. It is interesting to note, in this connection, the recent investigations of Drs. Gumlich and Ewald, demonstrating that, in many cases of apparently normal digestion, the proteid change, for the most part, does not go beyond the formation of propeptone. I have personally been able, in a very moderate amount of work done in this line, to demonstrate the presence of both propeptone and peptone in the gastric contents after best meals; the biuret reaction being positive, and the individual reaction for propeptone and peptone being obtained.

Dr. Pryor speaks of the great frequency with which the lithemic state occurs in the Spring. This interests me, as I have found, by the microscope, more uric acid crystals in the urine in the Spring than in any other season, and have remarked upon these seasonal changes in the urine. Phosphaturia I have found most frequently in the hot weather, while oxaluria occurs at all seasons, especially in persons with pneumatosis, nervous belching, or great gastric flatulency.

Dr. Pryor also says sodium salicylate is the best remedy for the lithemic state in which lithuria exists. This does not agree with the statement of Sir William Roberts, in a recent number of the *Lancet*, that solutions of the potassium salts dissolve more parts of uric acid per thousand than any other agent, and that next in solvent power stands plain distilled water. He shows that solutions of the sodium salts are inferior in their solvent power for uric acid than plain distilled water.

Dr. Bartlett: Among the prominent causes of lithemia may be noted deficient elimination from the cutaneous surface of the body. These excretions are often extremely toxic. Persons of sedentary habits, or whose vocation is pursued in a vitiated atmosphere, are prone to lithemia. I advise such to secure at frequent intervals abundant diaphoresis by active exercise, and, if necessary, in a heated room. Also bathing in water containing a notable amount of alkali, or of germicidal quality. As regards water in large quantity as a beverage, I think great discrimination should be used. With many, excess of water induces flatulence and painful eructations, and digestion may be greatly retarded. A patient, who had nearly completed his century, told me recently that he had been compelled to disuse it for this reason, and often passed weeks and months without so much as a glass of water. Doubtless, the soda fountains encourage injurious habits in this regard by the attractiveness of the syrups and flavors employed. Patients prone to diarrhea often aggravate the disease by yielding to inclinations to imbibe too freely, thereby increasing peristaltic action, and preventing the utilization of the elements of nutrition.

I congratulate the Academy upon the high standard of the essays read at this the initial meeting of what I confidently hope will be a long and honorable history.

The Buffalo Academy of Medicine will meet, after November 1, 1892, at their new parlors, 639 and 641 Main street, third floor. During November the sections will meet on the following nights:

Section on Surgery meets Tuesday evening, November 1st. President, Dr. C. C. Frederick; Secretary, Dr. W. G. Ring.

Section on Medicine meets Tuesday evening, November 8th. President, Dr. Thomas Lothrop; Secretary, Dr. H. U. Williams.

Section on Anatomy, Physiology, and Pathology meets Tuesday evening, November 15th. President, Dr. H. Mynter; Secretary, Dr. I. M. Snow.

Section on Obstetrics and Gynecology meets Tuesday evening, November 22d. President, Dr. P. W. Van Peyma; Secretary, Dr. L. C. Randall.

The next regular meeting of the Academy will be held Tuesday evening, December 6, 1892.

DeLANCEY ROCHESTER, M. D., *President.*
WM. C. KRAUSS, M. D., *Secretary.*

Selections.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

[*From the Indiana Medical Journal, October.*]

The fifth annual meeting of the American Association of Obstetricians and Gynecologists was held at St. Louis, Mo., September 20th to 22d, at the Lindell hotel. There was a good attendance of members, both from the East, West, and South, and Canada was ably represented by Dr. J. F. W. Ross, of Toronto. The notable absentees were Price, Cushing, Marcy, and Krug.

The President, Dr. A. Vander Veer, presided in a most able and satisfactory manner. The moderate and judicial manner in which he engaged in the discussions was the admiration of every one present.

The programme, as published, was closely followed, and furnished ample material for scientific discussion. The papers were

all good, and a few of them were of superior quality, while the discussions were animated. Altogether it was agreed that in its scientific aspect the meeting fully measured up any preceding one. It was very noticeable in the programme that the meeting was to be chiefly occupied in the consideration of surgical questions relating to obstetrics and gynecology. Such proved to be the fact of nearly all the papers and discussions.

Dr. Potter's paper on Posture brought out a lively discussion, in which a consideration of the Trendelenburg position received much attention.

Several members spoke in positive language of the advantages of the position in operations involving pelvic surgery, especially in total supra-vaginal removal of the uterus. Dr. Hoffman alone opposed its use. His ground of opposition was that it was a constrained position, that it might lead to congestion of the upper extremities and head, and to infection of the abdominal cavity by gravitation of pus in case of rupture of a pus cavity, and, furthermore, that it was entirely unnecessary.

The matter of drainage in abdominal and pelvic surgery was presented by Dr. McMurtry, and thoroughly discussed. It was the consensus of opinion that drainage should be almost universally resorted to,—first, for the purpose of drainage, and, second, as a means of indicating the presence or absence of hemorrhage. The small glass, open end, tube was preferred, though Dr. King called attention to the value of a section of the rubber tubing used in lavage. He claimed this material was firm enough to prevent collapse, and said he felt safer in its use, because he had no fear of its breaking, as he did have when he employed the glass tube. Dr. Vander Veer stated that celluloid had been proposed as a proper material, and that it commended itself to him because of its firmness, lightness, and toughness.

Several papers were presented upon the subject of Supra-vaginal Hysterectomy for Fibroid Tumors. Drs. Price and Krug's papers were not read, because of the absence of the authors, but Drs. Miller and Hall's were. The latter took strong grounds in favor of total extirpation of the uterus, and claimed that, with the patient in Trendelenburg's position, it was quite as easy of performance as the ventro-fixation operation, and had, in his hand, yielded better ultimate results.

Dr. Hoffman combated this idea, and supported his views by reference to Dr. Price's work, which showed the most rapid

operations with the lowest rate of mortality of any living operator.

Dr. Reed spoke favorably of total extirpation, while Dr. McMurtry preferred ventro-fixation. Clearly, further experience is required to settle this question.

Dr. Ill, of Newark, N. J., read an elaborate and scholarly paper upon Tumors of the Abdominal Walls. His researches in this direction are so thorough and exhaustive, his paper will be found of much value.

Dr. Manton's paper on Abdominal Surgery on the Insane, and Dr. Rohé's paper on The Relations of Pelvic Diseases and Psychical Disturbances in Women, excited much interest and discussion. No brief *résumé* would do either of these papers justice. Both papers will appear in an early number of the *American Journal of Obstetrics*, and will, unquestionably, be fully discussed.

Dr. Morris's paper on Is Evolution Trying to Do Away with the Clitoris? possessed much originality, and it was discussed upon the theory of being an entirely new field of investigation. It is not so, however, as those who will carefully look up the literature of the subject will discover.

The crowning interest of the whole meeting was reached on the last afternoon, when three papers upon Ectopic Gestation were presented and elaborately discussed. Papers were read by Drs. Ross, Hall, and Rickets. Dr. Ross's paper was elaborate and exhaustive. His large experience and extensive research touching this abnormal condition entitles him to speak somewhat with authority. The salient points brought out were that extrauterine pregnancy cannot be positively diagnosticated prior to rupture; primary abdominal pregnancy may be possible, but has not been proven; interstitial pregnancy may occur; by far the vast majority of cases of ectopic gestation are tubal, and are due to preëxisting disease; rupture in tubal pregnancy occurs between the third and fourth months, and may end fatally from hemorrhage or peritonitis; or the placenta and fetus may find a new location and continue to grow until the end of the period. In the treatment of tubal pregnancy, electricity to produce death of the embryo was condemned. When a diagnosis could be made before rupture, the complete extirpation of the tubes and contents was advocated. After rupture, immediate removal is indicated.

Dr. Hoffman presented several specimens illustrating various points bearing upon the subject. One was especially interesting,

it being a fetus at full term and a large-sized placenta removed from the pelvic cavity. He was unable to determine that the fetus and placenta were surrounded by a sac. The case was, prior to operation, thought to be one of normal pregnancy nearing full term, and, owing to urgent symptoms, an endeavor was made to hasten labor by introducing a catheter and rupturing the membranes. There was a discharge of amniotic fluid, but labor did not occur; finally, to save life, the abdomen was opened and the fetus and placenta found, the former in the abdominal cavity, and the placenta behind and at the side of the uterus, in the pelvic cavity. The uterus was normal, except enlarged to about the size of one at the third month of pregnancy. This was thought by many to be a case of interstitial pregnancy, and that a portion of the sac containing the amniotic fluid protruded through the uterine opening of the tube into the uterine cavity, and was ruptured by the catheter.

Dr. Ross thought that the products of gestation were surrounded by a membrane which had probably ruptured a few days before the section.

This brief report can give but a meager idea of the many excellent papers presented and the profitable discussion that followed. It is expected that all the papers will appear in a single number of the *American Journal of Obstetrics*, in November or December.

L. H. DUNNING.

249 N. Alabama Street, Indianapolis.

RECTAL INJECTIONS.

The value of flushing the colon with properly sterilized water—hot, tepid, or cold—according to the special indications present, will be readily admitted in a long list of formidable diseases, some of which may be mentioned, as follows: Habitual constipation, with or without mental depression or active cerebral manifestations due to auto-infection, being so common, might be permitted to head the list; all occult nervous affections, associated or not with the uric acid diathesis, would naturally attract our notice, as it is well known that disordered innervation is generally conducive to the absorption of poisonous products from the alimentary tract. They are also serviceable in disease dependent upon pelvic congestions, such as uterine displacements, ovarian pains, and hemorrhoids,

for they contribute materially, though indirectly, to relieve the original cause, viz., hepatic insufficiency. In appendicitis, perityphlitis, and abscess, for which the *amœba coli communis* is now held responsible, they are invaluable.

Mild and even severe cases of dysentery and diarrhea are often brought to a favorable termination without enemata, but it is safe to say that, with appropriate diet, all cases would be decidedly benefited, and many fatalities avoided, by the adoption of this simple means. Enemata should find a place in the treatment of other disorders of this character, notably in the collapse of cholera morbus, yellow fever, and cholera, as well as in the conduct of cases of pleurisy or typhoid fever.—*American Therapist.*

THE STERILIZATION OF WATER BY HEAT.

The very great necessity of rendering water sterile, particularly during the prevalence of infectious diseases, is becoming more and more recognized as a method of preventive treatment.

In order to meet this need, there has been manufactured in France a portable boiler, with suitable containers attached, which can be taken by horse-power from house to house, providing the populace with water which has been sterilized by heat, and which will remain with its supplying-tube drawing water from the river or well which supplies the town, and deliver it to the people who bring their vessels for the daily supply. The advantages of such a method cannot be overestimated. The *Scientific American*, in its issue for July 9, 1892, publishes a picture of the apparatus, and a description which is taken from *La Nature.*

It consists of a boiler with an independent steam reservoir, one or more exchanges, and a filter. The exchanges, which are cylinders provided with worms, constitute the most interesting and original part. The impure cold water that they receive is heated by the temperature of the boiled water circulating in the return worms, and this same boiled water becomes cooled therein by giving up its heat to the water which goes to the boiler. In this way the exchange of temperature is effected without expense, and it is possible to easily furnish, on its exit from the apparatus, water sufficiently cool to be used at once.

In fact, experience has proved that water that has been submitted in this apparatus, for at least fifteen minutes, to a mini-

mum temperature of 120° C., may make its exit therefrom with a temperature but 2° higher than that which it had when it entered. As for the microörganisms that it contained, there no longer remains a trace of them. It is absolutely sterilized.

The method has rendered signal service in the barracks of the Marine Corps at Brest, where typhoid fever occurred for many years in such a way as to be almost epidemic.—*Therapeutic Gazette.*

HIGHER MEDICAL EDUCATION IN THE SOUTHERN STATES.

The circular recently sent out from Nashville, with the names of Drs. W. T. Briggs and W. D. Haggard, invites the medical schools of the South to a convention in Louisville, Ky., during the session of the Southern Surgical and Gynecological Association, which will be held on the 15th, 16th, and 17th of November, next.

The object of this conference is to adopt a uniform standard of requirements by all the Southern schools, and thus place them on an equal basis before the students who may seek a place for pursuing their studies. Without coöperation in the requirements for graduation, it is evident that nothing can be accomplished in advancing the cause of medical education, either by lengthening the term, defining the preliminary qualifications, or exacting a thorough knowledge of the different branches for receiving the degree of M. D. Should the schools of one State require a three years' course of study, while others decline to do so, the most probable result would be, that students who are anxious to get a degree by the shortest route, without reference to a high order of professional attainments, would patronize the schools having a two years' course. Had the proposed bill before the Legislature of Georgia become a law, and exacted from the schools of this State a requirement of three years' attendance on the part of the students, it must have proven suicidal to the Georgia medical colleges, while colleges of other Southern States continued to graduate students with only two years' attendance. The example of the medical college of South Carolina, at Charleston, in establishing a three years' course, serves to illustrate this point in a most signal manner. If the great falling off in numbers, which has followed this premature step, does not suffice to convince those in authority in Georgia of the

fate which must have attended a requirement of three years in advance of the other schools in the South, no reasoning can avail to satisfy them.

However desirable it may be to raise the standard of medical education, the question of expediency in undertaking to advance the requirements without coöperation, stares us in the face ; and if all can be induced to move together by such action as is proposed in this convention, the interest of all concerned will be promoted.

The Southern Medical College has signified its acceptance of the invitation to join the convention at Louisville, and it is to be hoped that every Southern school may accede to the proposition to adopt a three years' course and insist upon the proper preparation for entering upon the study of medicine.

Some definite understanding should also be reached in regard to the qualifications for graduation, so that a wholesale granting of diplomas shall discredit the school which tacitly, if not publicly, gives all applicants to understand that they will receive their degree.

It is not enough that the graduates of such a school shall fail to pass the examination of the medical boards in a neighboring State, however humiliating this may be to the poorly trained victim, but the school discharging such material upon the suffering people of this country should be held to accountability.

The above is part of an editorial which appears in the *Southern Medical Record*, October, 1892.

Believing the writer, Dr. J. McF. G., to be on the right line, and that his suggestions are sound and at the same time practical, we have reproduced what he has said. There must, unquestionably, be coöperation on the part of all the leading Southern medical colleges before any good results can be attained. Alabama is ready.—*Medical and Surgical Age.*

The Best Code.—The bulk of the profession is feeling more and more every day that the best code is one that can be expressed in the fewest clauses, and that the individual or community is best governed which is governed the least, and that the unwritten law which governs gentlemen is all that is necessary for any educated gentleman in any calling.—*Charlotte (N. C.) Medical Journal.*

BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

EDITORS:

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

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THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

THE eighteenth annual meeting of this Association was held in Cincinnati, October 12–14, 1892, under the presidency of Dr. Charles A. L. Reed. As might be expected from the conjunction of two facts in the foregoing sentence—namely, the location and the president—the meeting was a successful, interesting and instructive gathering of representative physicians. The committee of arrangements, consisting of five delegates from each of the four medical societies of Cincinnati, with Dr. J. A. Fackler as Chairman and Dr. T. V. Fitzpatrick as Secretary, performed its functions in a most satisfactory manner. The discipline of such a committee, made up of delegates from the representative medical societies of a large city, and headed by competent officers, cannot be excelled, and other cities may well model committees, with similar duties, after the fashion adopted in Cincinnati.

The place designated for the meetings of the sections, both medical and surgical, were centrally located and contiguous to each other, which is of prime importance to the comfort of visitors and members.

One of the reasons that contributes to the success of the meetings of this association is the season of the year in which they are held. Mid-October in the Mississippi or Ohio Valleys shows the weather and the region at their best. Nothing could be more lovely than a ride through Southern Ohio, Indiana, Illinois, or Missouri, returning through Tennessee and Kentucky, at this season. The ever-changing hues and bright parti-colors of the foliage, together with the ripened harvest and autumnal grasses, present a picture pleasing to the eye and stimulating to thought.

The address on Advances in Therapeutics, by Dr. H. A. Hare, of Philadelphia, was a most interesting and scholarly paper, that

deserves to be carefully read by the entire profession. The *Therapeutic Gazette* for October 15th publishes it in full. The address on Surgery, promised by Dr. Hunter McGuire, was omitted, owing to the failure of the author to present an appearance. It would appear that the duty is well-nigh imperative to fulfill an appointment to address a professional body on a specific subject, sickness or dire calamity alone preventing.

The social part of the programme was well carried out, and consisted of a reception at the Art Museum, which is so famous, and a reception and banquet at the Grand Hotel on consecutive evenings. These, together with the numerous private dinners and luncheons, served to keep the guests busy out of regular meeting hours.

The officers chosen for ensuing year were : President, R. Stansburg Sutton, M. D., Pennsylvania; First Vice-President, W. N. Wishard, M. D., Indiana ; Second Vice-President, W. S. Christopher, M. D., Illinois ; Secretary, T. V. Fitzpatrick, M. D., Ohio ; Treasurer, A. M. Owen, M. D., Indiana ; Chairman Committee of Arrangements, F. C. Woodburn, M. D., Indiana ; Committee on Credentials, C. S. Bond, M. D., Chairman, Indiana ; I. N. Love, M. D., Missouri ; J. B. Murphy, M. D., Illinois ; T. H. Stuckey, M. D., Kentucky ; Judicial Council, Theo. Potter, M. D., Indiana ; Chas. A. L. Reed, M. D., Ohio ; C. H. Hughes, M. D., Missouri ; and W. H. Daly, M. D., Pennsylvania.

Place of next meeting, Indianapolis, Ind.

Finally, the Association distinguished itself by daring to do the right thing with reference to the so-called code issue. Heretofore the rule has been, according to Article 3 of the Constitution of the Mississippi Valley Medical Association, that "membership in this Association shall be limited to those members in the profession of medicine who acknowledge an allegiance to the American Medical Association by signing its code of ethics." Notwithstanding this specific declaration of loyalty, the American Medical Association refused to admit delegates from the Mississippi Valley Medical Association at the Detroit meeting last June. In return for this singular act of courtesy, the Mississippi Valley Association changed the foregoing article to read, in effect, as follows : "Membership in this Association shall be limited to members of the medical profession in good standing." This is the sum of the whole question, and should be all the ethical declaration needed by any society. We have refrained from a discussion of this subject during the past

several months, while it has been such a lively theme in the journalistic world, and we only allude to it now to show the manliness of the Mississippi Valley Medical Association in taking hold of this subject in the right way, and handling it in the proper spirit. The Medical Society of the State of New York shakes hands with the Mississippi Valley Medical Association, and meets it on common ethical grounds.

TOPICS OF THE MONTH.

The *United States Investor*, a business weekly, published in Boston, offers prizes amounting to $1,000 for essays, of not more than one column each, respecting American cities and towns. The judges to award these prizes are Hon. Henry Cabot Lodge, of Massachusetts; Hon. Charles F. Crisp, of Georgia; and the Hon. Julius C. Burrows, of Michigan. The prizes will be subdivided as follows: For the best essay respecting any American city or town, $500; for the second best essay on the same subject, $300; and for the third best, $200. Here is an opportunity for public-spirited citizens to write something about Buffalo that will give it distinction. It would seem very easy for Buffalo to take the first prize in this contest when the subject is so large and attractive. The essays that are intended for competition should be marked as such and forwarded to either of the offices of the *Investor*, namely, 19 Pearl street, Boston; 335 Broadway, New York; or 241 Chestnut street, Philadelphia.

The *Electrical Review*, which has been heretofore devoted to the consideration of mechanical and applied electricity, has established a medical department, for the purpose of considering the therapeutical uses of electricity. Dr. J. Mount Bleyer is appointed to conduct this part of the *Review*, and a prospectus has been issued to the medical profession calling attention to this fact. The *Review*, in establishing a medical branch, follows in the wake of one or two other commercial journals, and we can take no exception to this action from the business side of the question; but we desire to enter our protest, most emphatically, against any countenancing this method of journalism by the profession. One medical editor of a lay journal now holds himself up as the very apostle of medical ethics, and yet we submit that in thus appearing once a week before the public as an editor of a medical column in

a lay journal, that goes into business quarters far more than into professional circles, he is violating the very foundation principle of all professional ethics. The New York State Medical Association, which is the self-constituted guardian of medical ethics as formulated and expounded by the Judicial Council of the American Medical Association, should appoint a committee to investigate the medical editors of lay journals.

La Revista Médico-Quirúrgica Americana is the title of a new monthly medical publication printed in New York, and edited by Drs. Samuel E. Milliken and Pedro J. Salicrup. A long list of collaborators is announced, embracing the names of some of the prominent members of the profession. There are some strange juxtapositions of opinion with reference to medical ethics amongst the staff of this new journal, which is the authorized organ in the Spanish language of the Pan-American Medical Congress. For instance, here we see the names of Dr. Henry G. Piffard, of New York, and Dr. N. S. Davis, of Chicago; of Dr. Albert L. Gihon, Medical Director of the United States Navy, and Dr. John A. Wyeth, of New York; of Dr. Joseph Price, of Philadelphia, and Dr. Lewis A. Sayre, of New York; of Dr. David Webster, of New York, and Dr. Henry O. Marcy, of Boston. These names represent the very antipodes of medical ethics. Verily, medical journalism, as well as politics, makes strange bedfellows.

Medical spelling and pronunciation is one of the themes of the hour. The tendency at present is to simplify and Americanize as much as possible. Hence, in the journalistic world we see diphthongs dropped whenever they can be with propriety, and pronunciation is made to follow the simplest, which are always the best, rules. The chemical section of the American Association for the Advancement of Science, at its annual meeting in 1887, appointed a committee to make revision in its spelling and pronunciation. Under the chairmanship of Dr. T. H. Norton, of Cincinnati, this committee pursued its work during four years, consulting the leading medical philologists as well as the American chemists in general, and finally reported to the Association at its meeting in 1891. In an article published in the *Popular Science Monthly* for September, 1892, by Frederik A. Fernald, is an interesting statement of the work of the committee, and a discussion of the subject of the pronunciation

and spelling of chemical and geographical words. It will look somewhat strange to the eye to substitute f for ph in sulfur and all its derivatives, but we have no doubt it will soon come to be the accepted method of spelling. It is quite necessary for an American to speak and write American as far as possible; hence, the growing tendency is to Anglicize words of Latin and Greek origin whenever practicable to do so. This is another improvement that advanced thinkers and writers are struggling to establish.

The *Sanitarian* for October, 1892, has fairly overreached itself in its criticism of the Government quarantine order issued under the sanction and with the approval of the President. This venerable sanitary magazine says that the President's signature was secured to the most disgraceful edict against practical sanitation that has emanated from any official entrusted with the duty of protecting public health during the last thirty years. Then, if it were possible to do so, it adds insult to injury by publishing the order with a mourning border. It must be that the editor of the *Sanitarian* has lost his head, for it does not seem probable that such a disgraceful exhibition of partisan hatred could have escaped the pen of any right-minded journalist.

The *Indiana Medical Journal* has recently put itself into a new dress, and infused into its columns an activity and method that is worthy of commendation. This journal is easily regarded as one of the foremost medical magazines in the West. We congratulate the editors on their progressive and enterprising spirit.

The *Annals of Ophthalmology and Otology* announces its removal from Kansas City to St. Louis, Mo. This quarterly journal of practical ophthalmology, otology, laryngology, and rhinology, will soon enter its second year of publication, and has become the leading organ of the specialties that it represents. It is handsomely printed and ably edited.

The Committee on Organization of the Pan-American Medical Congress will issue the preliminary announcement of the Congress within a few days. This announcement will show that the organization has been perfected in almost every colony and country of the Western Hemisphere. The local medical societies in each of

the constituent countries are made auxiliary to the Congress, which will be held in Washington, D. C., September 5, 6, 7, and 8, 1893. Dr. Charles A. L. Reed, of Cincinnati, Secretary-General of the Congress and Chairman of the Committee on Organization, announces that, after extended correspondence between himself and Dr. Maragliano, of Genoa, General Secretary of the Eleventh International Medical Congress, the date of the Rome meeting has been finally and definitely set for September 24th, of next year. This gives an interval of sixteen days between the Washington and Rome meetings, during which time an easy trip can be made from the former to the latter city. It is possible that a steamer may be chartered direct from New York to Rome.

Personal.

Dr. John Parmenter, late of 372 Franklin street, has removed his office and residence to 116 North Pearl street, Buffalo. His office hours are from 8 to 10 A. M., and from 2 to 3 P. M.

Dr. J. Collins Warren, of the Harvard Medical School, has accepted the Executive Presidency of the Section of Medical Pedagogics in the Pan-American Medical Congress, vice Dr. D. B. St. John Roosa, declined. This is an admirable appointment, and Dr. Warren will not fail to make this section what it should be, namely, the most important department of the Congress.

Dr. Charles E. Sajous, editor of the *Annual* of the *Universal Medical Sciences*, has been appointed a Knight of the Legion of Honor of France, for his services to the French colony and to science, as an American of French descent. Dr. Sajous has taken up his residence at No. 28 rue de Madrid, Paris, whence he will continue the conduct of the *Annual*, and will also translate it into French.

Obituary.

Dr. Thomas Fanning Wood, senior editor of the *North Carolina Medical Journal*, died in Wilmington, August 22, 1892, in the fifty-second year of his age. Dr. Wood was one of the most accomplished physicians in the South. He had been active in securing

the enactment of the law providing for the State Examining and Licensing Board, and was one of its most prominent and active members for some years. He was also a member of the State Board of Health, and was Vice-President of the American Public Health Association in 1891.

Dr. Wood was a student of botany, and found recreation in pursuing this interesting field. He left a large library, with many works in it pertaining to his favorite subject, and a herbarium which is one of the most complete of its kind. The various societies with which he was connected have passed memorials that bespeak in touching terms of their affection for their departed friend and colaborer. It is not often so marked a man dies in the midst of his activity, and we beg to join our North Carolina confrères in their tributes of respect to the memory of one who was such a distinguished ornament to our profession.

Dr. Walter Coles, of St. Louis, died August 9, 1892, after a long and trying illness that depressed his spirits to that degree which compelled him to seek his own destruction. Dr. Coles was a well-equipped man in several respects, but had particularly distinguished himself in the field of obstetrics and gynecology, in which department of medicine he had taught successfully and practised faithfully. Among the many physicians who have fallen during the year, Dr. Coles's name will stand prominently. The St. Louis medical magazines have published fitting tributes to his memory, and the *St. Louis Medical and Surgical Journal* has issued a most excellent half-tone portrait of the deceased. His funeral was largely attended by a sorrowing profession.

Society Meetings.

The Southern Surgical and Gynecological Association will hold its fifth annual meeting in Louisville, Ky., on Tuesday, Wednesday, and Thursday, November 15, 16, and 17, 1892, under the presidency of Dr. J. McFadden Gaston, of Atlanta. Mayor Tyler, of Louisville, has written a letter to the Chairman of the Committee of Arrangements, Dr. L. S. McMurtry, tendering the use of the Council Chamber to the Association for this meeting. The indications on all sides are such as to warrant the expectation of a large and enthusiastic assemblage. Members of the medical profession are most cordially invited to attend.

The New York State Association of Railway Surgeons will hold its second annual meeting in the Academy of Medicine, 17 West Forty-third street, New York City, Monday, November 14, 1892.

PROGRAMME.—MORNING SESSION, 9.30 A. M.

Papers.—1. Conservative Surgery as Applied to Railway Injuries. By Dr. R. S. Harnden, of Waverly. Discussion opened by Dr. L. S. Pilcher, of Brooklyn.

2. A Contribution to the Study of Amputations at the Hip-joint. By Dr. J. B. Murdock, of Pittsburg. Discussion opened by Dr. John A. Wyeth, of New York.

3. Osteogenesis and Osteoplasty in Crushing Lesions of the Extremities. By Dr. Thomas H. Manley, of New York. Discussion opened by Dr. Robert F. Weir, of New York.

Business meeting, 12.30 to 1.30.

AFTERNOON SESSION, 2.30 P. M.

4. President's Address.

5. Expert Examination and Testimony in Railway Cases. By Dr. B. A. Watson, of Jersey City. Discussion opened by Dr. Stephen Smith, of New York.

6. The Transportation of the Wounded upon Railways. By Dr. W. B. Outten, of St. Louis. Discussion opened by Dr. W. J. Galbraith, of Omaha.

7. Calendula as a Surgical Dressing. By Dr. A. Wilson Dods, of Fredonia.

The officers for 1892 are: President, George Chaffee, Brooklyn; Vice-Presidents, M. J. Baker, Hornellsville; P. A. Skiff, Frankfort; Secretary, M. Cavana, Oneida; Treasurer, A. M. Curtiss, Buffalo.

The Eleventh International Congress will meet in Rome, Italy, from September 24 to October 1, 1893. By an official letter, dated August 22, 1892, and signed by Professor Guido Baccelli, President, and Professor E. Maragliano, Secretary-General, Dr. A. Jacobi, of New York, has been directed to form an American subcommittee. Its membership is not yet complete, but on it are already found, beside that of the Chairman, the names of Drs. William Osler, of Baltimore; S. C. Busey, of Washington; N. S. Davis, of Chicago; Charles A. L. Reed, of Cincinnati; William Pepper, of Philadelphia; F. Peyre Porcher, of Charleston; James

Stewart, of Montreal ; and Alexander J. C. Skene, of Brooklyn, N. Y. In the interest of facilitating the trip to Italy and reducing the expense, arrangements will be made with the steamship companies. According to a communication from the Central Committee—contained in a letter of the Secretary-General's, dated September 24th—the North German Lloyd proposes to reduce the fare to Genoa by twenty per cent., and that of the return trip by ten per cent. It is expected that still more favorable terms will be secured.

The next meeting of the Buffalo Microscopical Club will be held in the lower lecture room of the Library Building, Monday evening, November 14, 1892, at 8.15 o'clock. The programme for the evening is as follows : Exhibition—Embryology of the Chick ; Essay—The Use of the Microscope in the Diagnosis of Diseases of the Blood, by G. Carl Huber, M. D., F. R. M. S., Assistant Professor of Histology and Embryology, University of Michigan, Ann Arbor, Mich. All readers of the Journal are cordially invited to be present.

Book Reviews.

An American Text-Book of Surgery for Practitioners and Students. By Charles H. Burnett, M. D., Phineas S. Conner, M. D., Frederic S. Dennis, M. D., William W. Keen, M. D., Charles B. Nancrede, M. D., Roswell Park, M. D., Lewis S. Pilcher, M. D., Nicholas Senn, M. D., Francis J. Shepherd, M. D., Lewis A. Stimson, M. D., William Thomson, M. D., J. Collins Warren, M. D., and J. William White, M. D. Edited by William W. Keen, M. D., LL.D., and J. William White, M. D., Ph. D. Profusely illustrated. Price, $7.00 net, cloth ; $8.00, sheep ; $9.00, half Russia. Sold by subscription only. Philadelphia : W. B. Saunders, 913 Walnut street. 1892.

The tendency now is towards encyclopedic medical literature. In this work a number of distinguished teachers and practitioners appear as authors, but it is impossible, except by inference, to differentiate the part that each has taken in writing the book. The scope and plan is somewhat novel, but in a sense appeals to the conditions that confront us. Beginning with Surgical Bacteriology, which occupies the first chapter of ten pages, the subjects are taken up in their regular order. In book first they follow that of treatises upon general surgery.

Book second is devoted to Special Surgery, and has ten chapters, varying from ten to thirty pages each. The classification by anatomical systems is an admirable one. Chapter I. deals with Surgery of the Vascular System; Chapter II. with that of the Oseous System; Chapter III. with Fractures; Chapter IV. with Diseases and Injuries of Muscles, Tendons, and Bursæ; Chapter V. with Orthopedic Surgery; Chapter VI. with Surgery of the Nerves; Chapter VII. with Surgery of the Joints; Chapter VIII. with Dislocations; Chapter IX. with Injuries of the Lymphatics; Chapter X. with Surgery of the Skin and Appendages. We have enumerated the subdivisions of book second for the purpose of calling attention to the admirable classification which the editors have made.

Book third deals with Regional Surgery, beginning with Diseases and Injuries of the Head, and going through the several regions, cavities, and tracts of the body, including Surgery of the Eye and Ear, besides devoting a chapter each to the surgery of the genito-urinary tracts of the male and female. Book fourth is devoted exclusively to operative surgery, while a voluminous index of twenty-two pages closes the volume.

There are some admirable features about this work, and we have no doubt it will assume a popular place in the literature of surgery and be found prominently displayed on the book-shelves of surgeons, or even of those who have an occasional necessity to practise that art. We are of the opinion that it would have been well to have omitted such chapters as the Surgery of the Female Generative Organs, or else have given the subject over to the hands of an experienced gynecologist to prepare. The general surgeon rarely writes anything that attracts the specialist when he deals with this department, and, we may say, still more rarely writes anything useful to the student. Such chapters are generally padded with a few glittering generalities, together with a number of indifferent illustrations that are either obsolete or else so painfully fresh as to have little or no practical utility. This criticism may also be fairly offered with regard to the other special departments of surgery, such as the eye and ear.

This work is admirably printed on beautiful paper, and some of the plates are especially fine. Many of the cuts have, heretofore, done long duty and are now veterans, while a large number are original, and will command careful inspection. Facing page 896 we find plate 22, "hypertrophy of the median and lobes

of the prostate," has been reversed, so that it reads upside down, and there are some few further slight defects due to hasty preparation, but these are of small moment. We have no patience, however, with hypercritical remarks regarding the mechanics of a book when the text is in the main so admirable. The book is rather cumbersome to handle, and needs a very strong binding, which, we are sorry to say, the one we possess has not. The authors have been admirably grouped with reference to their special fitness to write practical surgery, and the editors could not have been more wisely chosen. On the whole, we commend this volume as the most interesting and instructive American text-book contribution to the literature of surgery made by American surgeons within the last quarter of a century.

A Treatise on Diseases of the Nose and Throat, in two volumes. By Francke Huntington Bosworth, A. M., M D., Professor of Diseases of the Throat in the Bellevue Hospital Medical College, New York ; Consulting Laryngologist to the Presbyterian Hospital; Consulting Physician to the O. D. P. of the Bellevue Hospital ; Fellow of the American Laryngological Association, of the American Climatological Association, of the New York Academy of Medicine ; Member of the New York Laryngological Society, of the Medical Society of the County of New York, etc., etc. Volume II. Diseases of the Throat. With three colored plates and 125 wood-cuts. New York : William Wood & Co. 1892.

The continuation of the consideration of this subject by Bosworth will be a source of gratification to every member of the profession who is interested in the study of the diseases of which it treats. The first volume of this important work appeared about three years ago, and received an extended notice in Vol. XXIX., page 449, of the Journal, February, 1890. The volume before us is divided into three sections, the first of which deals with Diseases of the Fauces. Chapters I. and II. are devoted to the Anatomy and Physiology of the Fauces, and are a concise, but minute statement of these subjects. Acute and Chronic Follicular Pharyngitis are dealt with in the next three chapters, and throw much light on a subject that is, perhaps, the most obscure or least attractive of any questions connected with laryngology. Retro-pharyngeal abscess is an important disease, one singularly fatal, one not always easily recognized, and either leading to systemic or fatal local complications promptly. Bosworth handles it with directness, and upon surgical principles. The uvula and tonsils come in for their share of appropriate treatment, and in Chapter XVI. diphtheria is dealt with

in sixty pages of text. Bosworth holds to the doctrine of Oertel that diphtheria is primarily a local disease, which we regard as the only sound view of its pathology to take in the light of our present knowledge. But Bosworth, like all other advanced thinkers, recognizes the rapidity with which systemic invasion of the poison may follow its local appearance, and, hence, is not slow to treat it accordingly. We are pleased to observe the emphasis which he places upon the proper examination of the fauces of a diphtheritic patient. "It is not sufficient," he says, "to examine the child's throat by means of a candle, held in front of the face; the illumination should always be accomplished, where feasible, by means of a light reflected into the fauces from the concave mirror, while, at the same time, the parts are thoroughly exposed by the deft manipulation of a tongue depressor, and not a tablespoon, or such other domestic instrument as may be at hand. I do not think these points can be insisted upon too strongly." In making this examination, Bosworth recognizes its dangers and advises that the exposed parts of the operator, namely, the mouth and eyes, be protected, the former by a handkerchief and the latter by eye-glasses. If physicians would pay more attention to this necessary protection, we should hear of less sacrifice of life among those who attend diphtheritic patients. Chapter XVII. is an able exposition of our present knowledge with reference to Syphilis of the Fauces. Then comes, in succession, chapters on Tuberculosis of the Fauces, Lupus of the Fauces, and Foreign Bodies in the Fauces. Neuroses, Tumors, Sarcoma, and Carcinoma of the Fauces follow each other in consecutive order. Section II. deals with Diseases of the Larynx, and follows much the same order of sequence in which the diseases of the fauces were considered in Section I. We need not take time now to speak of all the details of this section, but it must suffice for us to say that to read it is to be instructed in a high degree.

Finally, the volume closes with the consideration, in Section III., of the External Surgery of the Throat. Minute and careful details are given for the operations of laryngotomy, thyrotomy, tracheotomy, extirpation, and resection of the larynx. The book is most handsomely printed on clear paper and plain type, and voluminous references are given at the foot of almost every page. A comprehensive biographical and general index makes it useful for reference. In conclusion, we unhesitatingly pronounce Bosworth's work, in the two volumes, altogether the most useful text-

book contribution to the knowledge of disease of the nose and throat that has yet been handed out to a progressive and intelligent profession.

BOOK ON THE PHYSICIAN HIMSELF, AND THINGS THAT CONCERN HIS REPUTATION AND SUCCESS. By D. W. CATHELL, M. D., Baltimore, Md. New tenth edition (author's last revision). Thoroughly revised, enlarged, and rewritten. In one handsome royal octavo volume. 348 pages. Bound in extra cloth. Price, post-paid, $2.00 net. Philadelphia: The F. A. Davis Co., Publishers, 1231 Filbert street.

At first glance, it is not easy to see what useful end was to be served by the publication of this remarkable book, and it is still more difficult to account for the popularity it has gained in view of the fact that the volume before us is a copy of the tenth edition. No one would charge Dr. Cathell with a wish to bring the medical profession into disrepute, and yet the unprofessional reader, especially if he be one of the many who are ready to belittle the value of medical science, will not be likely to have his distrust of a profession removed whose members need to be instructed in, or even reminded of, the most ordinary and obvious rules of ethics, not to mention the numerous professional directions, which, by implication, charge the practitioners, for whom the book is supposed to be written, with carelessness or ignorance.

To educated physicians the advice given by Dr. Cathell is, to say the least, gratuitous, since they will see in his best recommendations simply a mass of truisms; while upon those whose ignorance or moral twist ought to have prevented their investiture with the right to practise medicine, the really valuable part of the work is probably thrown away. Some of these, however, will appreciate the lesson given in behalf of personal advantages. Take one example: After recommending a familiarity with general scientific subjects and general knowledge in order to be on "a conversational level" with cultured classes with whom one may be brought into contact, he goes on to clinch his subject, so to speak, with the following worldly wisdom: "In fact, among intellectual and educated people, good conversational powers and broad culture, often, actually produce a higher opinion of a physician's professional ability than is really possessed."

One plausible reason for the original appearance of the book, a reason happily growing less and less valid, might be urged, viz., the ease with which a diploma could be had in some sections of

the United States, has flooded the country with a mass of uneducated doctors, most of whom had entered the profession simply for gain. Some there were, however, who were anxious to supply the deficiencies of early education by diligent and earnest study. To such, some of the advice given must have been of value. Others, and these were probably in the majority, cared little for science, so long as business prospered, and would, therefore, receive little benefit, except from such parts as treat of matters for personal advantage.

Since the first issue of Dr. Cathell's book, the times have changed in regard to the science and practice of the healing art. While this change is gradually going on all over our country, it is felt less in some parts than others, though there is room to hope that, by the united exertions and influence of the regular medical societies, a consensus of opinion will be formed, at no distant period, which will compel a high standard in all the schools of medicine, making an ignorant physician an anomaly if not an impossibility. We are proud to say that, in our own section of the country, this hope is realizing to a degree unthought of a quarter of a century ago, and that, by the concentrated efforts of the Medical Society of the State of New York, the laws of the State have been successfully invoked to prevent frauds upon the people by spurious or purchased diplomas, making them no longer the æges behind which they can conceal their ignorance.

A Text-Book of the Principles and Practice of Medicine. For the use of students and practitioners. By Henry M. Lyman, M. D., Professor of the Principles and Practice of Medicine in Rush Medical College, Chicago. In one very handsome octavo volume of 926 pages, with 170 illustrations. Cloth, $4.75 ; leather, $5.75. Philadelphia : Lea Brothers & Co. 1892.

Text-books on the practice of medicine are multiplying with wonderful rapidity. The reviewer has hardly laid aside Osler's recent remarkable treatise before he is called upon to go through the same process with reference to this sturdy candidate for favor and patronage that comes from the West. Lyman says he has endeavored to present, in this book, not only the fruits of his own observations and experience, but, in substance, the latest editions of the works of Ziegler, Hallopeau, Eichhorst, Cornil, and Babes, and of the collaborators of the Traité de Médecine.

Lyman divides his book into thirteen parts, and has departed from the usual order of sequence in the arrangement of topics.

Part I. is taken up with the consideration of preliminary matters, such as Growth and Development, Disturbances of Nutrition, Tumors, Disorders of Circulation, Contagion, Inflammation, and Fever. In Part II. he considers Parasitic Infective Diseases. Much interest will naturally center in any consideration of influenza or grippe, but Lyman devotes only a short chapter to this important subject. It consists of only four and a half pages of reading matter. The directness in style of the author, however, enables him to condense into these four and a half pages considerable valuable information. But, for a thorough understanding of this recently revived epidemic infective disease, it will be necessary to consult more elaborate treatises; or, still better, a monograph especially prepared by a competent man who shall treat the subject exhaustively. In Part III. we have a consideration of the Diseases of the Alimentary Canal, and here we find nothing beyond the usual order in handling the subject, though Lyman is precise in its treatment. He begins with diseases of the mouth, and considers every subdivision of the alimentary canal downward, until the lower intestine is reached, classifying each subdivision with reference to etiology, symptoms, diagnosis, prognosis, and treatment, together with such brief pathological considerations as the scope of his treatise will permit.

In Part IV., Diseases of the Liver, Pancreas, Peritoneum, and Spleen are considered. We think it would be well if most physicians, especially those who are apt to find their patients "bilious," or with their livers out of order, to read every author who has lately written on the diseases of that much-abused, but still very useful, organ. We remember that it has been said by one of the distinguished teachers of the land, that whenever we hear a doctor talk about liver complaint and biliousness, this should be set down as an expression of the algebraic formula of the unknown quantity of that man's brain. Let us, therefore, hear less of "biliousness" and "liver complaint," and come down to particulars when discussing or treating disturbances of the digestive tract, that are supposed to arise from functional or other faults of the liver. This is the line on which Lyman handles the subject.

Part V. treats of the Diseases of the Organs of Respiration, and this will be considered by many the most interesting section of the book, as it shows much care and exactitude in its preparation. The same, too, may be said of Part VI., which considers Diseases of the Organs of Circulation, to which 100 pages are devoted.

The remaining sections we must pass, with the final remark that the treatise is made up in a way to command the attention of the student, who must necessarily consult books that are concisely written, for under the pressure of time, which is too short for his proper preparation, he must necessarily submit to the baneful influences of the cramming process, that so implants itself upon his brain during his early student years, as to seldom or never become fully eradicated in after life. The author of this work is a man of distinction, and holds a teacher's chair in one of the most prominent medical schools in the West; therefore, on account of his scholarly attainment and high position, will command the respect of, and hearing from, a large and intelligent audience. We commend his labor as having been conscientiously performed, and as being entitled to an equally conscientious and patient reading. This treatise is, beyond all others issued of late, the one for a student to purchase and adopt as his guide.

OUTLINES OF ZOOLOGY. By J. ARTHUR THOMSON, M. A., F. R. S. E., Lecturer on Zoology in the School of Medicine, Edinburgh; joint-author of the Evolution of Sex; author of the Study of Animal Life. With thirty-two full-page illustrations; small 8vo, pp. 641. New York: D. Appleton & Co. 1892.

Books, though they cannot make one a naturalist without practical observation, are, in the present state of science, indispensable in directing his studies. The volume before us appears to be one of utmost importance in this direction, not only to the beginner, who must find in its pages a wealth of information that years of observation alone would fail to give him, but even to the advanced student of zoology, to whom it will serve as a reference where the essentials of the science are grouped together and stated in form and manner so clear and concise that he can at a glance revive his memory and fix his data.

Although Mr. Thomson modestly calls his production an "outline," it is far from being like some works on scientific subjects, a mere arrangement of orders, genera and species, by which the student may determine to what class his specimen belongs. From the amorphous protoplasm we may here trace the evolution of the various forms of animal life, from the simple amœba to the most complex vertebrate. The chapters on Evolution, Heredity, and Types will be found particularly interesting, and nothing can be more so than the clear and beautiful descriptions of the anatomy,

physiology, and habits of some of the lower animals, whose lives and habitats render their observation and description very difficult.

Excellent wood-cuts illustrate the whole, and the typography is of the best, making the volume one of exceptional value and interest to the student.

Essentials of Medical Diagnosis, arranged in the form of questions and answers, prepared especially for students of medicine. By Solomon Solis-Cohen, M. D., Professor of Clinical Medicine and Applied Therapeutics in the Philadelphia Polyclinic; one of the Physicians to the Philadelphia Hospital, etc.; and Augustus A. Eshner, M. D., Instructor in Clinical Medicine in Jefferson Medical College and in the Philadelphia Polyclinic; Registrar in the Neurological Deparment of the Philadelphia Hospital, etc. With fifty-five illustrations, some of which are colored, and a frontispiece. Philadelphia: W. B. Saunders, 913 Walnut street. 1892.

This book, which is number seventeen of the Essentials series, is more elaborate than its predecessors, and may be very properly so constructed, for it lays a foundation for future success to become a good diagnostician. This book has been, like its fellows, written especially for students, and to them it must look for its patronage. Since teachers themselves are responsible for the demand that is made for this form of book, it is not worth while to criticise the students if they choose to purchase it. It certainly will facilitate the cramming process, which is so necessary for a final examination, where the years allotted to student life are so few and the terms so short. We commend this book as one of the best of its kind.

A System of Gynecology, with 359 illustrations; based upon a translation from the French of Samuel Pozzi. Revised by Curtis M. Beebe, M. D., Chicago, Ill. New York: J. B. Flint & Co.

This abridgment of Pozzi's great work appears to have been issued for the purpose of economizing the cost, and further to give its editor a prominence. The authorized edition, edited by Dr. Brooks H. Wells, and published by William Wood & Co., is, however, the one that the profession will naturally choose, and it is certainly the one that ought to command its attention and patronage. The edition before us, although printed on good paper and with good type, is so condensed that it conveys only a meager impression of Pozzi's original work. We cannot consent to record our approba tion of this method of reproducing an author's elaborate and

exhaustive treatise and work, that has been the pride of his life and cost him many years of study and preparation.

Delsartean Physical Culture, with Principles of the Universal Formula. By Carrica Le Farre. New York: Fowler & Wells Co., Publishers, 775 Broadway. 1891.

This little book is invaluable to the student of physical culture. It sets forth the principles of physical culture in a comprehensive and practical manner. It enables anyone to become thoroughly acquainted with the system without belonging to a class. The author understands her subject thoroughly.

BOOKS RECEIVED.

Index-Catalogue of the Library of the Surgeon-General's Office, United States Army. Authors and subjects. Vol. XIII. Sialagogues-Sutugin. Washington: Government Printing Office. 1892.

A Manual of Jurisprudence and Toxicology. By Henry C. Chapman, M. D., Professor of Institutes of Medicine and Medical Jurisprudence, in the Jefferson Medical College of Philadelphia; Member of the College of Physicians of Philadelphia, of the Academy of Natural Sciences of Philadelphia, of the American Philosophical Society, and of the Zoological Society of Philadelphia. With thirty-six illustrations, some of which are in colors. Philadelphia: W. B. Saunders, 913 Walnut street. 1892. Price, $1.25.

How We Treat Wounds To-Day. A Treatise on the Subject of Antiseptic Surgery, which can be understood by beginners. By Robert T. Morris, A. M., M. D., Instructor of Surgery at the New York Post-Graduate Medical School; Late House Surgeon to Bellevue Hospital, New York; Member Linnean Society of Natural History, New York; Member New York County Medical Society; Consulting Surgeon to the Woman's Hospital, Brooklyn. Fifth and revised edition. New York and London: G. P. Putnam's Sons. The Knickbocker Press. 1891.

Transactions of The Association of American Physicians. Seventh session, held at Washington, D. C., May 24, 25, and 26, 1892. Vol. VII. Philadelphia: Printed for the Association. 1892.

Gynecology. By G. W. Bratenahl, M. D., Assistant in Gynecology, Vanderbilt Clinic, New York, and Sinclair Tousey, M. D., Assistant Surgeon, Out-Patient Department, Roosevelt Hospital, New York. $1.00. Students' Quiz Series, No. 12.

Practice of Medicine. By Edwin T. Doubleday, M. D., Member of New York Pathological Society, and J. D. Nagel, M. D., Member of New York County Medical Association. $1.00. Students' Quiz Series, No. 6.

Tuberculosis of Bones and Joints. By N. Senn, M. D., Ph. D., Professor of Practice of Surgery in Rush Medical College; Professor of Surgery in the Chicago Polyclinic; Attending Surgeon Presbyterian

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Gonorrhea and Urethritis. By G. Frank Lydston, M. D., Professor of the Surgical Diseases of the Genito-Urinary System and Syphilology in the Chicago College of Physicians and Surgeons, etc., etc. Physicians' Leisure Library. Detroit, Mich.: George S. Davis. 1892. Paper, 25 cents; cloth, 50 cents.

A Manual of Medical Jurisprudence. By Alfred Swaine Taylor, M. D., F. R. S. Revised and edited by Thomas Stevenson, M. D., London, Fellow of the Royal College of Physicians, London; Lecturer on Medical Jurisprudence and Chemistry at Guy's Hospital; Examiner in Forensic Medicine in the University of London; External Examiner in Forensic Medicine in the Victoria University; Official Analyst to the Home Office. Eleventh American, edited with citations and additions from the twelfth English edition. By Clark Bell, Esq., President of the American International Medico-Legal Congress of 1893. Honorary Member of the Medico-Legal Society of France: of the Society of Mental Medicine of Belgium; Ex-President of the Medico-Legal Society of New York, etc., etc. *Quod hodie exemplis tuemur mox inter exempla erit.* Philadelphia: Lea Brothers & Co. 1892.

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Original Communications.

OSTEOGENESIS AND OSTEOPLASTY IN CRUSHING LESIONS OF THE EXTREMITIES.[1]

By THOMAS H. MANLEY, M. D., New York.

The study of lesions of the extremities arising in consequence of great disorganizing force, which involve the osseous and arthritic elements, is one, alike, interesting and profitable to surgeons who are largely concerned in dealing with traumatism, particularly such as are employed by railroad companies, or reside in great commercial, industrial, or manufacturing centers. While the methodical pursuance of this subject is particularly desirable to active surgeons, yet every practitioner so placed that he may be called on to deal with injuries of the bones and the overlying soft parts, in order to secure the best results, should not neglect it.

In our time, since the rapid and extensive expansion of the surgery of the abdomen and other serous cavities, the management of fractures and dislocations, simple and complicated, seems to have received less attention than its importance deserves. Modern investigation, combined with improved mechanical facilities, the gradual but steady diminution in number of the old masters, with the advent of a large number of young recruits filled with a laudable ambition to reach the summit of fame, have each and all conspired to revolutionize the principles of surgery as taught within the recollection of many living. We have known venesection when it was regarded as one of the most valuable of prophylactics in every serious injury when the supervention of inflammation was anticipated. This had its day; then it was condemned, and it was alleged that "the lance killed more than the sword." Mercury,

1. Read at the Second Annual Meeting of The New York State Association of Railway Surgeons, New York Academy of Medicine, November 14, 1892.

internally administered, was considered a sovereign remedy, used conjointly with emetics, diaphoretics, and purgatives, at the onset of an inflammation, which had its origin in violence. But homeopathy took the field, and though Hahnemannism was not unconditionally accepted, it cannot be denied that it struck a crippling blow at the prevailing therapeutic theories of the time. Then we had wet dressings, again we had dry; at one time cold, and other wetted. At length Listerism, or antisepticism, took a vantage place, and the doctrine was pretty generally accepted by the civilized world. Finally, it did seem, for a time, that the millennium had come. With no more pain, with no danger of consecutive inflammation, tetanus erysipelas, or gangrene, simple or compound fractures, compound dislocations, resections or amputations must no longer give us serious concern. But, alas, for the fallibility of all things human, orthodox, antiseptics belongs to the history of the past; for we have at last realized what should have been self-evident to us all when this seductive theory was first thrust upon us, viz., that everything worthy of the name is an irritant and a foreign substance. Time, and a very short time, too, demonstrated that the most useful of all so-called antiseptics was mercury, applied externally, in a liquid state, by which it might be most readily assimilated.

More than a year ago, I called the attention of the profession to the lethal action of antiseptics and hot water on bare, bleeding, denuded bone, and reported cases in which, though primary union was present and complete in amputations, useless, painful stumps have often resulted from an insidious osteomyelitis, requiring a further sacrifice of the limb. The antiseptic wave swept over. It is already practically lost in the hazy oblivion of the past, and asepsis has followed in its wake. The latter term would imply that good surgery in the past did not always include the most rigorous cleanliness, which is wholly without foundation.

With those shifting, vacillating theories and doctrines, which have each come and gone in the present century, we must needs be not a little confused in deciding which to adopt, or which to discard. The fact is, that each has its application, and that no one of them can be indiscriminately employed in every case. Careful study, combined with ample observation of cases, will enable us to better comprehend the cases in which either asepsis or antisepsis may be most appropriately employed.

DISORGANIZATION OF THE OSSEOUS STRUCTURES OF THE UPPER OR LOWER EXTREMITY, RESULTING FROM RAILROAD ACCIDENT OR PHYSICAL VIOLENCE.

In order to more fully comprehend the consequences arising from a railroad accident, in which the shafts of bones or the articulations have suffered injury or damage to their component elements, we must first draw a line of distinction between the quality of motors employed on railroads, and the carriages for passengers; the shape of the rail, or wheel, and weight or velocity of the vehicle in motion. In our thrifty American cities and villages, with the general prosperity of our people, and facilities for cheap, rapid, and pleasant travel, the steam, electric, and horse tram have come into very general use, and hence, with us, millions ride daily who formerly walked.

We can readily understand that there must be a wide difference in the quality of an injury inflicted by the swift movement of a limited flyer of tremendous weight and the velocity of the wind, and that occasioned by the lighter, slower-moving street car. Certainly, since tramway companies have utilized steam in the cable movement for direct traction; and since electricity is so rapidly displacing horses, this sort of travel is becoming proportionally more dangerous in the event of collision or derailment. As accidents and injuries from tramway travel, though not possessing the attributes of destruction peculiar to steam railways occupied by passenger and freight travel, they are, by all odds, the most frequent, and it would seem that a consideration of them should be included in this subject.

The sacrifice of a limb in tramway travel is a comparatively unusual event, while the reverse is the case in crushing injuries of the extremities on railroads. In the one, we may concern ourselves chiefly with the local lesion; in the other, this may be but a minor consideration compared to the contemporaneous, by bodily shock, laceration of an internal organ, concussion, or internal hemorrhage.

It is quite impossible to discuss the osseous lesions of the extremities without considering the soft parts, particularly the muscular, neural, and vascular structures. The shafts of bones acted upon by muscular levers, animated by nerve filaments, and nourished by vessels in their undisturbed contiguity, these latter are essentially constituent parts of one and the same organ in health, so that when maimed or damaged by accident, that intimate relationship

cannot be disturbed with impunity. Accordingly, in this instance, while the osseous structures will chiefly occupy us, the adjacent structures will not be lost sight of. In tramway accidents, we most often encounter damage to the lower extremities, while in railroad casualties proper, injuries to the hand and forearm predominate in number. With the former, the misadventure occurs most frequently while the passenger is mounting or leaving the car while in motion, the trunk being projected outward and the feet inward. Besides, the slow movement of the street car permits one, in the flitting second intervening before the rolling wheel strikes, to instinctively save his head and arms. With heavy rolling stock, the coupling of cars causes many extensive contusions of the arms, hands, and fingers.

In collision or derailment, the suddenness is often so great that the instinct of self-preservation is powerless to act. Very much information can be gathered in making our examination, before we inspect the injured, in street railway accidents, by a methodically conducted interrogatory: First, was the car moving at a rapid rate of speed? Second, was it heavily loaded with passengers? Third, did one or two wheels pass over the limb? Fourth, was the injured struck by the horses, knocked down, trodden on, and then run over by one or more wheels?

We now come to an inspection of the patient; to ascertain his general condition, especially with reference to his cerebro-spinal system, his internal organs, and the state of the circulation. If the patient be a child or growing youth, we will always find collapse and shock much more marked than with the same extent of injury in the healthy adult.

Having regarded his general condition, we approach the examination of the injured parts, for the consideration of the management of which, in lesions of the extremities, the present study is undertaken.

LESIONS OF THE EXTREMITIES INDUCED BY STREET CAR INJURIES.

This class of injuries are quite peculiar to themselves, inasmuch as the danger inflicted is generally of a local character, and there is seldom marked collapse or shock present, unless a large blood vessel has been opened.

CLASSIFICATION OF THESE CASES.

(1.) Those consisting of contusion or laceration of the soft parts. (2.) The above, associated with fracture, simple, multiple,

compound, or comminuted. (3.) Dislocation, or fracture-dislocation. (4.) Loss of substance, partial or complete traumatic amputation.

I.

Traumatic lesion of the soft parts, whether penetrating or not, when not of an extensive area, and not attended with laceration of important nerve trunks or blood vessels, and do not implicate joints in the healthy individual, commonly pursue a prompt course toward recovery, under appropriate treatment. They become dangerous to life, or may compromise the ultimate full functional use of the limb only by the development of paralysis, erysipelas, gangrene, arthritic, or muscular anchylosis.

II.

The mangling of a limb, in which all its elements share in the consequences of vulnerant force, demand a full knowledge of the recuperative powers of the economy, sound judgment, skill, and experience in its management.

Ollier, surgeon to the Hotel Dieu, of Lyons, has recently published an unrivaled work on Osteoplastic Operations, a translation of which into English will soon be published by a well-known Western surgeon. Ollier's work has gone a long way in the direction of extreme conservatism in the management of that class of injuries which, heretofore, were only too often promptly dealt with by the saw and amputating knife. And here I beg to acknowledge a deep debt of gratitude to the teachings of this great surgeon on the subject of osteoplastic operation in disorganizing lesions of bone substance, the full value of which, in the past ten years, I have had opportunities to abundantly demonstrate.

The association of a simple fracture with contusions is not an untoward complication, though the frequent necessity of changing the dressings over the peripheral lesions is a painful inconvenience to the patient.

The presence of multiplicity in fracture, comminution, and local, limited disorganization of all the tissues, is always a serious affair. After sustaining an injury of this description, the patient is brought into hospital, to his home, or some temporary abode. At first sight, the limb may seem to be irretrievably lost. It has been twisted on its axis, or is terribly deformed. Torn muscle, tendon and ligament; the bare ends of shattered bones, denuded nerve

trunks, with gaping, oozing vessels, everything in contact with the wound is saturated with blood. The limb below is limp, of an ashy white, cold, motionless, and pulseless, all of which tend to produce a most ghastly sight. That it is lost, inevitably lost, is the first impression, and that nothing now remains but the question of its severance from the body—an amputation. Such a summary and hasty conclusion in the past, and not infrequently, we fear, at present, has only too often led to the needless sacrifice of many useful limbs. True, the limb is blanched and cold, and systolic distension of the artery is absent; but more or less shock is present, and, if one take the precaution to examine the sound side, he will find the same physiological phenomena present. But the torn, soiled clothing and particles of dirt and foreign substances mingle with the lacerated tissues, and infection is certain to follow. This latter conclusion is rather assumed than proven.

Now, if we undertake to save the limb,—something which should never be neglected in such serious traumatism in civil life,—unless it is wholly and irrevocably destroyed, the extent and quality of function which we may hope to restore, will, in a very large measure, depend on the nature and the extent of lesion to the bone substance; whether it extends into the articulation; whether there be an equal extent of fracture in both diaphyses; whether there be an extensive shelling out of bone, with complete detachment of the cellular or muscular tissue, loss of integument, muscular tissue or destruction of the arterial trunks.

Before the particular question of the direct treatment of osseous lesions is entered on, it may be well to briefly discuss here other details of importance in all these cases, as anesthesia, hemostasis, antisepsis, or asepsis, and mechanical fixation.

Anesthesia.—In the healthy adult, especially when much blood has been lost, it is better, unless our manipulations are to be very tedious, not to use any anesthesia in examination of the wound. The patient may be freely stimulated, by the mouth, with alcoholics before we commence, and, as the raw surfaces are benumbed immediately after injury, little sensation is present until reactory inflammation sets in. Certainly, in the very timid, in young children, we may be compelled to give ether at the time of the first dressing. But with them it is the most dangerous of all. If post-operative collapse and mortal shock are to be avoided, it must be

very sparingly administered, and, if possible, by an experienced hand.

The practice of injecting digitalis tincture into the tissues subcutaneously, I hold, is of no value whatever; on the contrary, in an exsanguinated patient it is easy to understand how, through its toxic action, it may cause fatal spasm of the cardiac muscles. It is unnecessary to speak of the possible lethal action of a pulmonary anesthetics in the presence of functional or parenchymatous disease in an organ of the injured.

Hemostasis.—As Professor Nicholas Senn lately pointed out in an able brochure, at the late meeting of American Railway Surgeons, modern methods of inducing artificial anemia, or stasis, are not without their dangers to the integrity of the soft parts, when not employed with caution.

There can be scarcely a doubt but in recent times the almost general indiscriminate employment of Esmarch's elastic bandage has contributed very often towards the mortal devitalization and asphyxia of parts which might have been preserved without it. I have seen a case of compound fracture of the leg, attended with a copious hemorrhage, in which a hospital *interne* applied this constrictor for four hours, awaiting the arrival of the visiting surgeon. When the latter came, the foot had hopelessly perished, and had to be amputated. Other similar cases have come to my knowledge. Perhaps, as a prophylactic against hemorrhage this apparatus should be set aside altogether. Tourniquet-pressure over a main blood trunk, with a muslin bandage over the lacerated parts, will serve a useful purpose, temporarily, with more safety than anything else that we have at our command. But even the tourniquet is not to be applied in any case, unless the practitioner be unaccustomed to capital, surgical operations; or in the event of the injury occurring in the night, when good light cannot be had, and assistance is not within reach.

The best suture for vessels of moderate size is none of any kind, but simple effective tortion, as catgut is prone to slip, and silk will irritate. Except in *bleeders* fine gauze-pressure will always easily staunch all peripheral oozing. But should a deep, spouting, retracted vessel continue to well up, it must be fearlessly cut down on and ligated. We must be always on the alert for consecutive hemorrhage in extensive lacerations involving bone.

Antiseptics or aseptics.—The application of any sort of chemi-

cal solution over clean, non-inflamed, healthy traumatized tissues, is as unnecessary as it is useless and irrational on the molecular, cellular elements of the denuded, freshly opened, compact, cancellous or medullary elements of the bone substance. The efforts of the surgeon should be, rather, to eliminate than introduce all foreign irritants of every description from a healthy wound, particularly when the bone structures are involved.

Nothing can take the place of water, pure and uncontaminated, for both cleansing and hemostatic purposes in this class of cases, but it must not be applied hot on nude disorganized bone. Spring water, when it is not free from an excess of the alkaline salts, is very irritating, and inferior to rain or river water. It is needless to say that water should be about the same temperature as the blood when employed as a cleansing agent, and that by moderately raising or lowering its temperature it is unrivaled as a therapeutic agent in complicated fracture cases.

Asepsis, or cleanliness, a very ancient expedient, though more rigorously employed in modern times, we must rely on rather than antisepsis, in all cases of bone surgery in which there is an entire absence of pollution or wound infection.

On this latter we must "meet steel with steel," and saturate the tissues with a potion, elaborated by the chemist, to neutralize those toxic elements, the products of the microörganisms.

Mechanical Fixation of the Fragments.—The ingenuity of surgeons has been fruitful in the elaboration of an infinite variety of mechanical devices for the fixation of bone fragments. There are splints, bandages, weights, swings, supports of various kinds, besides the utilization of spikes, hooks, screws, and wire in maintaining adjustment by being introduced or driven into the bone elements direct. Though this part of our topic ranks only second in importance with hemostasis in osteogenesis, and would richly repay an extended study, yet, in the present instance, restrained by the limitation of time, I must confine my comments on this part of the subject to those apparatuses which are employed in an osteoplasty, and which can be more appropriately considered later on under another head; though I may say, however, here, in a general way, that the simpler and less complicated any fixation appliance is, the better the results; and that, latterly, one of the cardinal and vital elements in the treatment of all mechanical disorganizations of bone shafts, posture has been lost sight of since the introduction of plaster-of-Paris.

III.

FRACTURE DISLOCATIONS.

Fracture-dislocations are lesions of a compound character, which, as they involve the arthritic structures, should deserve a special and extended study, will not be dwelt on here only so far as the bone lesion becomes a more or less predominant feature in given cases. Fracture through the elbow and ankle joints, attended with altered relations between the articulations, are familiar examples of this condition, and are remarkable and important injuries ; inasmuch the joint distraint, limitation of motion, and impaired strength after any sort of treatment is, in many cases, occasioned by an excessive or a vicious fusion of osseous hyperplasia, which no one can always either anticipate or obviate after osteogenetic processes are complete.

IV.

LOSS OF SUBSTANCE, PARTIAL OR COMPLETE TRAUMATIC AMPUTATION.

Many serious open shattered fractures are attended with loss, or local destruction of parts, the presence and integrity of which are necessary to the process of osteogenesis. It would be absurd, for instance, to think for a moment of saving a limb when the main arterial trunks are destroyed. It would be quite hopeless to attempt to restore a useful limb if both bones are extensively disorganized, with their fragments wholly stripped of periosteum, and detached from it, with no cellular tissue attachments in the adult matured man.

The extensive mistal contusion of a large area of integuments is a serious loss, which may frustrate our best efforts, even when we are quite assured of perfect osseous reconstruction. In a large hospital service, in which it is possible to borrow tissues and fill in the gap by homeoplastic grafting, or transplantation of skin *en bloc*, the difficulty may be overcome. Fiersch's grafts of the scarf skin are practically of no use there. They take promptly, it is true, but there is no wear in them, and they break down on the slightest irritation.

A bone shaft may be saved, but it must have a covering of integument. When there is so much loss of this structure in the hand or foot, that difficulty is encountered in covering a large granulating surface, or when after complete healing there is a great

cicatricial contraction, with distortion and immobilization, then the plastic operation of disososment, or ebonation of a finger, or toe, and the utilization of the member denuded of its bone and tendons, is one of the most valuable procedures known to surgical art; as in extensive disorganizing lesions of the extremities, involving the osseous structures particularly.

OSTEOGENESIS AND OSTEOPLASTY.

Having considered in epitome the preliminaries indispensable to the successful performance of operations of a conservative character on the osseous structures which have been traumatized, it is now in order to proceed with a consideration of osteogenesis and osteoplasty; or the phenomenon of the growth and regeneration of osseous structures, and how a knowledge of this, with the application of the resources now known to surgery may be utilized in disorganizing injuries which are limited to the extremities.

It is generally well known that the reproduction of bone is influenced by a number of circumstances with which it is well to have an intimate knowledge if we would, with any degree of certainty, forecast results, and give our patients the greatest prospects of recovery with the largest degree of functional restoration.

It is well to remember the influence of age, sex, condition, and treatment. Nor should it be forgotten that while, on the whole, the same common physical and biological elements belong to the entire skeleton; yet, as the various regional bones differ in the functions which they conserve; so do they very widely vary in their properties of repair and regeneration, for there are some bones which cannot be said to ever fuse with their own organic elements after injury, and others still are totally wanting in the way of regenerative power.

For one to read the various and conflicting views of recognized pathologists, with a view of attaining anything like definite knowledge on the precise phenomenon of osteogenesis, is little better than labor lost.

Does the periosteum produce a bone or does it not? If it does, then we must preciously preserve every fragment of it in our dressings. For centuries this question has been a matter of dispute, and it is so yet, notwithstanding the revelations of the microscope. For, at the present day, even so eminent an authority as is Dr. McEwen, of Glasgow, emphatically denies that the periosteal envelope possesses any regenerative power at all. Some have

gone into "hair-splitting" differences, denying that as a membrane it can regenerate bone, but that its inner layer, or lamina, is a powerful regenerator of osteoplastic cells.

While my own observations on a large number of open osseous lesions convince me that anything approaching perfect regeneration is impossible in the absence of the periosteum; still there can be little doubt that the medullary membrane is an important auxiliary in yielding bone cells, as well as other tissues in the immediate vicinity of the injury. It has long been known, too, that through molecular transmutation, blood-clot may part with its aqueous elements and undergo nucleation, segmentation, fibrillous, cartilaginous, or osseous changes. In those fractures extending into the epiphyseal or apophyseal ends of shafts, it is fair to assume, from analogical physiological phenomena, that bone substance may be wholly regenerated by endochoroidal formation.

Many authors, in describing fracture, so restrict themselves to the bone injury alone that the casual student might assume that this alone is what should command one's sole attention, but this is a short-sighted, delusive notion. All fractures, with very rare exceptions, are, strictly speaking, compound, though in surgical nomenclature none are so designated, except such as are in direct contact with the atmosphere. This opening of the tissues and exposure of the denuded ends of the bones is always an unfortunate complication. Under the most intelligent surveillance and environment, it greatly retards processes of repair and consolidation. When one of those compound fractures extends into a joint, or involves a major shaft, as the humerus or femur, the degree of inflammatory reaction is severe, often resulting in fatty degeneration of the compact substance, anchylosis, or even loss of life. Since the advent of the antiseptic doctrine, not a few imbued with a conviction that the employment of chemical solutions secured them immunity, have many times come to grief, crippled or lost their patients, when they imprudently, by the free use of the scalpel, made a simple a compound fracture, either for purposes of diagnosis, or direct mechanical treatment.

But why such disastrous consequences to open fractures when lethal elements of the atmosphere may be excluded. If we carefully observe the physiological properties of bone, we will readily comprehend the *raison d' être.*

What most strikingly impresses us at the outset is the extreme intolerance to irritation of exposed disorganized bone wherever

situated, although this is more marked in certain bones than in others, and in different sections of the same bone. This is most obvious, however, in the tubular segment of the shafts.

Condition and position exert a marked influence in the regenerative processes after fracture. For instance, as a rule, in fracture, the sooner, after all turgescence and tumefaction have disappeared, that adjustment and rest is given the fragments, the more prompt is union. Yet, in many cases of fracture of the lower extremities, the completion of union is often rather accelerated by slight motion in the joints above and below the point of fracture, and by carrying the limb in the vertical position. Moderate motion, then, is not incompatible with union, but in many it favors osteogenesis, as well as the rapid absorption of adventitious elements. It also very materially aids in the prevention of anchylosis, a condition so prone to follow the protracted fixation of an articulation. Sampson Gamgee[1] was among the first to call attention to the fact that the union of bone after fracture is effected in a large measure, as the union of the soft parts, viz., by primary and secondary fusion of the fragments by a plastic, non-inflammatory hyperplasia; and by the more tedious and imperfect process of large effusion, condensation, and ossification, which is akin to the common granulation of wounds.

Gamgee taught that when there is a simple, uncomplicated fracture, without much displacement, and its immediate reposition is possible without protracted splint pressure, in the healthy and vigorous, *immediate union*, or perfect union, within a few days or a week, occurred. My own experience goes to support this statement, a knowledge of which cannot be overestimated in the therapy of fracture. And in those cases in which a corporation surgeon, finding no crepitus, displacement, or callus after a few days or a week, might hastily assume that there had been no fracture, and assume that extortion was being practised.

OSTEOPLASTY.

Ollier[2] divides osteoplastic operations into three classes, which, for their utility and simplicity of arrangement, will be adopted here: (1.) Autoplastic. (2.) Homeoplastic. (3.) Heteroplastic.

He ranks autoplasty, or the transference of grafts, or transplantation of osseous tissue, from one region or position in the same individual, as that which is the most successful.

1. Sampson Gamgee. Clinical Surgery. Page 217.
2. Traité Experimentale et Clinique de la Régénération Dis Os.

Homeoplasty, or transplantation of living bone from one individual to another, or one animal to another of the same species, comes next in importance.

He places heteroplasty, or the implantation into the human economy of the bone elements from the lower animal, as the least useful, and finally questions whether it possesses any utility at all.

AUTOPLASTY.

The field of autoplasty is very large, and with the daily increase of traumatisms, which involve the extremities, it is constantly attaining greater proportions. However, certain definite conditions must be observed to make its application practicable, or possible, in any case. The injury to the bone must be recent, before inflammatory changes are manifest. The fragments must have an ample nutrient supply, and be protected from infection or irritation.

We may have a comminution of bone in simple fracture, which Dr. Charles Powers designates the "bean-bag" fracture, which gives rise to no inconvenience, all the particles consolidating in the process of cure. But when we have to deal with an open, compound fracture attended with much shattering, then every fragment must come away at the primary dressing, which is completely detached and lying loose in the wound, whether it has a periosteal investment or not.

I am well aware that this is not in keeping with the tenets of surgery, as expounded by many modern authors. But we must not disregard the evidence of our own senses, nor the accumulated observations of many others, who affirm that all fragments completely cut off from a direct vascular supply must sooner or later perish in a fracture. It has been thought that we might retain or replace such fragments, and that they may become ossific centers. In my own experience, when this has been attempted, the imprisoned particles have either become encapsulated, underwent a gradual absorption, or were thrown off by a process of ulceration. Nevertheless, it must be acknowledged that autoplastic bone grafts, as skin grafts in torpid, languid ulcers on the surface, though they melt down and are taken up by the absorbents, or undergo necrotic changes, they do in some way, in may cases, exercise a marked stimulative effect on regenerative processes.

With those fragments of bone which preserve a vascular connection with the connective tissues, through the periosteum or their

endochondrium, re-implantation is immediately successful and definite in its results.

CLASS OF CASES IN WHICH AUTOPLASTY OF BONE MAY BE UTILIZED WITH THE GREATEST ADVANTAGE, AND THE PRECAUTIONS NECESSARY TO OBSERVE TO SECURE THE MOST EFFICIENT RESULTS.

Osteoplastic procedures are especially valuable in a large number of compound fractures in the bones below the knee- or elbow-joints, attended with more or less shattering and displacement.

When the fracture is single, and the fragments are not stripped of periosteum, complete reduction of the fragments, with appropriate dressings, leads to rapid ossification, obliteration of the hiatus, and solid union. Unfortunately, complete fixation of the fragments by any sort of mechanical adjustment which will retain the broken ends of the bones, without inducing dangerous pressure in the main blood-trunks, and imperiling the soft parts, is only too often utterly impossible.

It was hoped, with the protection which antiseptics promised, that this difficulty would be obviated by extending mechanics to the bones direct; that metallic spikes, or sutures, might be utilized in splicing the fragments, removing these materials after an osseous shell of new bone was formed, or fusion of the ends commenced. In this particular we have been doomed to disappointment, for, with very few exceptions in those cases, none of these expedients are of any value whatever ; nay, on the contrary, the introduction of wire sutures to maintain an efficient grip on the ends of the bone, entails such a violent manipulation of it by the heavy forceps and drill that it seems to rather retard than accelerate union. Wire corrodes at points where it impinges on the bone; on its medullary and periosteal surfaces necrosis occurs, and little progress is made until it is removed. But in rare special cases, these materials, notwithstanding their drawbacks, may be employed with some advantage. By properly employing posture, reducing or preventing muscular spasm, we may, in the majority of cases of single compound fracture of the forearm or leg, secure union without any more deformity or shortening than had there been an *unopened* fracture. When this follows, the result must be considered as very good.

In compound, multiple fractures, in which there are more than one fracture of either or both bones of the leg, with mutilation of the soft parts, and considerable displacement of osseous

substance, the total sacrifice of the limb or the degree of its future usefulness will mainly depend on the efficiency of osteoplastic intervention.

In the growing youth, or adolescent, a shaft may be totally disorganized from one epiphyseal line to the other, being completely shelled out of the periosteum, when this membrane is amply competent to fully restore the lost bone substance. Such an example has come into my hands, which, at first sight, seemed hopelessly lost, but the patient now, six years after the accident, has a strong and useful limb, and walks without a limp.

In double fracture of a shaft, much may be accomplished in the child or adult in the way of structural regeneration, but when the fracture is triple or quadruple, continuous and complete ossification of the bone segments is rarely possible, though if each preserves its periosteal investment, and is on any of its surfaces firmly united to the cellular-vascular structures, it will serve as the nidus of a new ossific center, which, after a slow process of exfoliation, will throw off the devitalized, necrosed bone blocks, and substitute in their stead a mass of amorphous bone elements; the cement substance of repair being supplied by a series of concentric layers, advancing in a centripetal direction until the border of each meet, and the continuity of the diaphysis is again restored. In this connection, it may be well to have it distinctly remembered, that every species of osteoplasty, the simplest as well as the most complicated, though Nature's best effort at regeneration, is but a species of mending or patching, analogous with and identical to the repair of the integuments or cellular tissues; and that true, perfect structural bone is never reproduced, its prototype, or substitute, in composition and function, however, bearing a close resemblance to it.

The conditions, then, necessary for successful autoplastic operations on traumatized bone, are, first, youth and sound health; second, the adhesion of the fragments and periosteum to the cellular tissues; and, third, a moderate extent of bone lesion. When both shafts are equally damaged in their continuity, and the adjacent neural and vascular elements have sustained great violence, efficient osseous restoration is seldom realized.

In serious fractures of the forearm, as muscular relaxation in this situation is easily secured, and perfect fixation of the fragments, with ample bodily exercise, are not impracticable as in the lower extremity, osteoplasty should be resorted to with great

diligence, as the prospects of success are greater here than in any other region of the body.

With the humerus and femur, directly the opposite condition obtains. If efficient osteoplasty were a safe expedient, how great would be the temptation in every case of fractured femur to cut down, make an accurate diagnosis, bring the displaced fragments of bone into *direct* contact, and fix them there with the spike or suture?

Then the inevitable shortening of the femur of the adult in fracture would be obviated, and perfection in function would be restored. In bad fractures of the humerus, deformities or diminished action would be replaced by symmetry of action and former strength. But the medullary membrane of these shafts is, on mechanical manipulation, extremely susceptible to a dangerous phase of inflammation, which is prone to excite such a general pyemic state as to lead to amputation of the limb. This is almost the invariable result when the femoral shaft, in simple fractures, is rendered compound, and the ends of the fragments are pegged or wired. This same danger is always present, though not in the same degree, in fractures of the humerus.

Direct osteoplastic procedures instituted with a view of securing adjustment and immediate union in simple fractures, should be condemned as impracticable, endangering the integrity of the limb, and often imperiling life.

The re-implantation of bone, or an autoplastic operation, in a comminuted fracture with a free opening, is a valuable procedure when the fragments, a few or many of them, maintain a connection with the soft parts, and preserve a part of their periosteal covering. It must be confessed, however, that even here the detached fragments are gradually thrown off by the new crop of bone cells, which spread in every direction during the process of bone regeneration. But we will encounter cases in which the bone fragments lie loosely in the mangled tissues, which have no investment of any description, and which, on their removal, leave an enormous breach. What shall be done here ? The bone elements are, possibly, yet vascular and uncontaminated ; and it would seem that by their replacement and fixation each fragment would become a new ossific center. With them, nevertheless, ulceration and necrosis is the rule, the devitalized bone acting as a foreign substance until it is thrown off.

In very many instances, when these serious complicated fractures come under our observation, it may be quite impossible to institute a

sufficiently searching examination to determine, with certainty, the vitality of the fragments, but there is nothing to be lost by delay; by waiting from twenty-four to forty-eight hours before we definitely decide what, if anything, can be accomplished by osteoplasty, when Nature will map off the devitalized from the living, and we may estimate with a considerable degree of accuracy what the ultimate outlook will be.

Certainly, in leg fractures, when the fibula has escaped, or there is but one fracture of this deeply buried, brittle shaft, it serves, in a large measure, as a splint, and aids greatly in fixing the limb. When this bone shares in the shattering, the chances of osseous restoration are greatly diminished, because the bone is so deeply lodged, and is so fragile, possessing so little medullary and cancellous substance, that little can be done with it when extensively shattered, and its loose fragments lie in the open wound.

HOMEOPLASTIC OPERATIONS.

Homeoplasty, as its designation implies, is the transplantation of bone from one part of an individual to another, or from another of the same species. I have never had any experience with this phase of osteoplasty, nor can I conceive of it possessing anything other than a very limited range of application.

Its efficiency, however, is vouched for by Ollier, Horsley, McEwen, and others in certain rare cases. When it is remembered that it is only when the bone preserves its attachment with the cellular elements that autoplasty is feasible, it is obvious that unless we can coaptate the fragments of two different individuals by immediate segmentation of the fragments until they have become fixed, as we do in skin grafting, we must fail of success. But physiological laws and the moral sense are both alike antagonistic to such mutilating experiments.

HETERO-OSTEOPLASTY.

Of late years, so many heterodoxical ideas in connection with osteogenesis have been promulgated and taught, that it commenced to seem, for a time, that our old masters were all wrong in the views which they held as late as twenty years ago on the subject of bone regeneration. Hence, we must learn anew the principles of bone surgery.

Far-reaching and of wide proportions were the new vistas opened to us. It was said that not only could bone be completely

removed from all its connections for varying periods of time, and then be restored with impunity, but that we might blend the osseous structures of the lower animal with man. It was alleged that antiseptics opened the way to all this. The periosteum of the kid, the young rabbit, and the guinea-pig, as well as their soft cartilaginous shafts, were utilized as ossifying centers. The vitelline membrane of the hen's egg and the medullary membrane of the chick's femora were also appropriated for like purposes.

It was even alleged that we might revitalize dead bone by placing it in contact with the living, as in ossifying bone cavities with particles of decalcified bone. The human being and the lower animal have been locked together with a view of borrowing from one to supply a bony defect in the other.

Notwithstanding all that has been said and written of late on this subject, it may be safe to affirm that the grounds occupied by physiologists and surgeons in the beginning of the present century on osseous regeneration are yet quite impregnable, and that, taken as a whole, we may assert of the most modern views on hetero-osteoplasty, that there is nothing in them, and that it is as well to totally ignore them.

It won't do to tell us that because certain bones seem to ossify more rapidly after the introduction of ossific substances, that they imparted certain stimulating properties, and assimilated with living bone. Many of such cases have been prematurely reported, when later the whole mass has been absorbed, or worked its way through to the surface by ulceration.

Hetero-osteoplasty, then, is not an operation which time and an abundant experimentation justify as applicable to traumatized bone disorganization in the extremities of the human subject.

In those cases of double fracture of one shaft as the tibia, with a single fracture of the fibula, if the central segment of the tibia is shelled out in one or many fragments, what shall be done?

(1.) Shall we be content with bringing the limb into position, adjusting the fibula, allowing the chasm left by the removed fragment, the tibia to remain, with the hope that by periosteal regeneration it will be filled in? (2.) Will we resort to homeoplastic or heteroplastic methods of bone grafting. (3.) Will we, on the contrary, cut down on the fibula, and remove enough of its shaft to permit the separated ends of the tibia to come together and so unite? (4.) Or, lastly, will we permit the parts to unite, leaving the gap between the ends of the tibial fragments to heal, hoping

that by compensatory hypertrophy, and prothetical appliances, to be able to secure a fair degree or restoration of function in the leg and ankle?

The first may succeed in the youth under twenty, while the growing skeleton is in process of growth, though even then it may fail. If the disconnected bone can be rendered aseptic with this class, it may be replaced, serving, mechanically, only as a splint, and being a substance least likely to excite irritation, until an involucrum of new bone entombs it.

The first question has been answered under the head of autoplasty.

The second is answered under homeoplasty, autoplasty, and heteroplasty. The former, as a conservative measure, may avail, but in the latter failure will almost inevitably result. As to the third and fourth propositions, in compound fracture of the leg I have found it a measure of great utility in the healthy. When the loss of tibial bone substance is limited in the adult, we may with safety and with advantage cut down on and remove a sufficient segment of the fibula to permit the divided and separated ends of the tibia to come together. But it must be done *immediately* after the injury if we would secure solid union. As to the fourth question, if we have doubt as to our patient's recuperative energy, and would avoid additional shock, we must be satisfied with leaving a gap and cushion joint, the resulting weakness in the limb being compensated for by a mechanical adjustment. The latter in many ways, when a choice is open to us, is the preferable.

With a loss of more than a third of the tibial shaft, especially when this is limited to the upper segment, though the entire fibula remain and more or less compensatory hypertrophy follow, yet through loss of muscular attachment resulting, want of support and steadiness at the ankle-joint, will render the limb very defective in function, so that the question of amputation and the adjustment of an artificial limb must then be considered.

It goes without saying, that in extensive compound fracture of the bones of the forearm in the young, in whom the bones are elastic, succulent, and immature, with a thick periosteal sheathing, very much may be accomplished by osteoplastic methods.

As these bones perform a complexity of function, in force and prehension, it is evident that perfect restoration in action need not be expected after any osteoplastic operation on them. Perhaps, after the healing processes have been completed a flail joint may

result, or so much of the shaft of one of the bones may require resection, as to require thereafter a radial ulnar support. If the carpal end of the radius or the humeral end of the ulna is so extensively involved as to require its entire sacrifice, though the remaining structures of the limb preserve their integrity, muscular power is so much diminished, control of joint action lost, and an edematous state of the tissues follow, that the hand serves no useful purpose is a source of constant discomfort, and a useless, burdensome appendage.

I am unacquainted with any case on record of epiphyseal, or apophyseal regeneration after loss by physical violence. Hence, in those rare cases in which the entire osseous composition of a joint is by force swept away, yet life is spared, its restoration need not be anticipated, as nothing but a pseudo-arthroses is provided by Nature as a substitute for the normal.

As this essay has been written with a view of considering in outline only a few general features in connection with the interesting question of osteogenesis and osteoplasty in those disorganizations of bone substance resulting from force or violence however applied, my efforts under the circumstances might be regarded as incomplete if no specific reference were made to those lesions of bone consisting of fracture, shattering, or crunching of the osseous structures, occasioned by railroad violence, on the steam railroad, in contradistinction to the tramway.

It cannot be emphasized too strongly, that those railroad injuries which involve the soft parts and encroach on the bones always possess attributes peculiar to themselves.

The distinguishing characteristics attending serious injury of the extremities by railroad rolling stock are, first, the serious and profound constitutional disturbance, which is so constantly associated with this class of traumatisms. These are of a mental and physical character. The first is confined to and expressed through the sensorium; the second are of a general and local description.

In order to essay any sort of osteoplastic procedure on the living body, we must be quite assured that our patient will rally from primary shock.

Now, in those dreadful railroad crushes, in that one or two second interval between the full realization of the dreadful calamity, which there is no escape from, the instant of contact, a flash, of horror suspends all the vital functions, the cerebral and spinal

centers are palsied, and consciousness of the external world is lost. The heart stops, or beats with a feeble, irregular stroke. But in a moment all is over, the mangled man lies momentarily dead. However, reaction soon sets in, when the injury is not of a mortal character. But shock, though temporarily overcome, will make an indelible impression on our patient and the nutrition of his wound. And, perhaps, at a time when we hope all immediate danger is past, bulbar paralysis may set in, and our patient sink.

It is seldom when a limb is badly crunched by car wheels, that the body does not sustain a violent concussive twist, or jerk, is violently dragged or crushed, and the internal organs, as the spinal cord, liver, kidneys, or lungs suffer in varying degrees. It is well known that after all violent railroad accidents, the renal secretion is markedly affected, *diabetes*,—insipidus, or melitus, temporary or chronic,—often supervenes.

Hence, here the condition of the general system or various complications demand our most careful consideration, else our best endeavors at the seat of injury will be futile, as distant pathological conditions may lead to a fatal termination, when ossific processes are most promising.

DISTINCTIVE PECULIARITIES OF THE LOCAL LESIONS IN RAILROAD MUTILATIONS.

In such pathological conditions as are met with in practice which require an amputation in continuity, the operator may map out his flap-areas with a mathematical accuracy, and secure prompt primary union. When a limb has been fractured by the body having been propelled upon it, as it is in a fall or in a projected movement, or when a limb has been run over by any ordinary street vehicle, we may, with a considerable degree of certainty, when a traumatic amputation has been effected, resect at a vital line through the proximal tissues without fear of subsequent gangrene.

In railroad crushes of an extremity, none of these conditions obtain, for the magnitude of force and momentum are commonly so great that the tissues are destroyed in both directions far beyond the point of contact, some to a greater degree than others; and, immediately after injury, there is no means known to science to enable us to limit the precise extent of destruction. The vessels and muscles bear the consequence of damage the best, the integument and bone being the first to succumb. The bone substance,

which at first seems vascular, soon parts with its vermillion hue, looses its firmness, and breaks down through necrotic processes, or by a molecular, interstitial osteomyelitis, so that often, in a short time, they proceed far beyond the point of fracture before sound, healthy bone is formed.

Again, with not a few, though osteogenetic processes are active and bone restoration is promising, but, alas, the broad plaque of skin which we depended on to enclose the stump is occupied by active gangrenous changes, thereby rendering all our best conservative efforts useless.

The above description, which, it will be agreed, is not an overdrawn one, should not be lost on those whose province is and always should be directed towards saving life and limb. It teaches us that in railroad disorganizations, unless the damage to the parts has been so great as to produce a traumatic amputation, we must limit our interference at the primary dressing to cleansing the wound, subduing all hemorrhage, bandaging and bracing the mangled limb, and waiting until time and natural physiological phenomena have clearly determined whether the limb must be sacrificed, or that the part may yet preserve sufficient vitality to permit us to so successfully utilize modern osteoplasty so as to spare to the unfortunate patient a useful and serviceable member. This later will be all the more gratifying to the patient, and an immense relief to the corporation in whose employ we may serve, or the injured was employed. In civil life, with the class of injuries here described, *delay* should be the watchword, as in our times, under proper circumstances, very much may be gained, and many limbs spared by observing this course, while prompt, immediate primary amputation, a procedure always full of peril, destroys at once and forever every prospect of restoration.

The subject which I have essayed to treat of is one of such prodigious proportions and enormous importance, that however fascinating its study is to us all, as I am limited by time, I must ask your indulgence if it has been very incomplete and wanting in such a classification or subdivision as might enhance its value.

[Note.—The limit of this brochure will not permit of considering, in detail, either traumatic amputation, or compound fracture dislocation, according to classification.]

302 W. Fifty-third Street.

Original Lectures.

ENDOMETRITIS.

By CLINTON CUSHING, M. D.,
Prof. of Gynecology.

A Clinical lecture delivered at Cooper Medical College, San Francisco, October 5, 1892.

Gentlemen—You have heard the history elicited from these two young women through the questions propounded. They are sisters. The first one has been married five years, has never been pregnant, and has had a leucorrhea since before marriage. She comes to us on account of the vaginal discharge, and because she has a pain in the region of the left ovary.

The other has been married eight years, has had two children and two miscarriages, the last child a year ago, this child having died a month since. She comes to us on account of a leucorrheal discharge and a backache, the discomfort being about the junction of the sacrum and the lumbar vertebræ. She gives a history of not having had leucorrhea before marriage; also, of having nursed a child for eleven months and feeling rather badly and weak as a consequence.

She further complains that sexual relations with her husband cause her a good deal of pain about the uterus. The act is not only painful at the time, but is followed by a sense of exhaustion. She further states, and I would like to call your attention to this point, that she never has had at any time any sexual desire, and still this woman goes on and bears two children, having been four times pregnant, without any sexual appetite. On the contrary, the act has always been disagreeable to her. I speak of this particularly, because I am applied to quite often by married women who are sterile, and tell me they have no sexual desire whatever. They submitted to the act because it was necessary for them as married women to do so. They believed that the absence of the desire had something to do with the fact of their not bearing children. In this case there is, manifestly, no relation between the absence of sexual desire and the aptitude for pregnancy, and this may be considered a fair example which will apply, as a general rule, to these cases.

Now, these two cases are quite common, such as you will be likely to meet with constantly in practice. The first patient tells

us that she has had some kind of vaginal discharge since she was a young girl. What, then, was the trouble at the outset? She probably had at the beginning a cervical endometritis, or, in other words, a chronic congestion and thickening of the mucous membrane that lines the neck of the womb. The glands become diseased and enlarged, the secretion markedly increased, resembling the white of an egg as it escapes from the cervical canal, turning to a yellow color in the vagina. This condition is not uncommon even in children, but is much more frequent after puberty.

The second one that we have questioned tells us that she did not have this discharge before marriage, but now the discharge has increased to such a degree as to attract her attention. The first case has pain in the region of the left ovary. A careful examination shows no enlargement of the ovary or of the Fallopian tube, and no displacement of the uterus. It is not always easy to determine the cause of pain in the region of the ovary, where there is no enlargement or displacement of the organ. As you know, at the time of ovulation, the ovary becomes much enlarged, bursts open, an egg escapes, and there is a hemorrhage from the injured surface; in other words, a positive violence is done to the tissue. Should such a process take place on the surface of the body, it would necessarily be attended with very decided pain. That it should produce pain in the ovary in a proportion of cases, seems to me only natural, and it is true that this physiological function which we would naturally expect should be painless, is, in fact, attended in a very large number of women with varying degrees of pain and discomfort. This woman had this pain two years ago. It disappeared and has not returned until now. The sexual relation has nothing to do with the cause of this pain, as she is not living with her husband.

What was the cause of the endometritis in the first case? It is very difficult to say. You ask me what is the cause of the chronic congestion of the mucous membrane that lines the nostrils, in half the children you meet in the street. First comes the question of inheritance. One will give you an account of a drunken father or a dyspeptic mother. Another will tell you about a history of tuberculosis in the family. Another, of having had the measles or scarlet fever when young, and thereafter had chronic congestion of the mucous membranes of the body. Another will tell you that he lived in San Francisco where the wind was cold. Another, that he had indigestion from the beginning, and that was

the probable cause. It is so difficult to say in chronic congestion of the mucous membranes what was the original cause. That eruptive diseases, scarlet fever, small-pox and the like, sometimes leave behind them a chronic affection, is well known. That our cold winds here in San Francisco tend to keep up a congestion of the mucous membranes of the body, is also believed. The existence of gout, syphilis, rheumatism, or tuberculosis may all be considered predisposing causes. I think that it is a general opinion among professional men that the younger generation of the people of European origin who live in North America, tend to suffer more from chronic affections of the mucous membranes than their progenitors who remain in Europe. It is said that there is something about the climate of this continent, something about the methods of life, something about the food, something about the general habit, that tends to produce catarrhal affections of the mucous membranes. Now, here is something for you to investigate. Find out why it is so common in this country. It is not confined to San Francisco, Omaha, or New York, but it is generally distributed, all over this country, whether you go to New York, St. Louis, or Philadelphia. If you examine 100 children indiscriminately in the public schools, you will find that a large percentage are suffering from affections of the mucous membranes of the throat and nostrils.

Now, if these causes act upon the mucous membranes of the nostrils and throat, they also act upon the mucous membranes of other parts of the body. These sisters are half Spanish and half Irish —a combination of two very strong races—and both are races that have resisting power. The Irish are a vigorous people, and the Spanish ought to be peculiarly adapted to this climate, because they come from a country almost a facsimile of California. Spain, in all her characteristics, is practically the same as this State, and that is why the Spaniards selected it as their new country. As the English took the country of the north because it was like their own, so the Spanish sought out a country on the new continent similar to their native land, but, as you see, these transplanted and mixed races do not fare much better than others. But what may be some of the local causes independent of the general causes already stated ?

In the first place, we have in women a cause that is in action for about thirty years of their lives. From the time they are fifteen to forty-five, if they are not pregnant or nursing a child,

they have a local periodical congestion coming on every four weeks, and attended with a partial exfoliation of the mucous membrane that lines the uterine canal. Now, this repeated congestion of the parts may easily drift into a chronic congestion. It is only necessary that this normal congestion be accentuated by untoward influences in order to produce a chronic endometritis. Let a woman, at the time of menstruation, take unusually long walks, get unusually heated, or expose her legs and feet to unusual cold, the normal congestion of the pelvic organs becomes at once an abnormal one.

What is the argument, then, in this connection? It is that every woman ought, in justice to herself, to be excluded from every kind of excessive labor, or work, or excitement, at the time of the monthly congestion. I believe that the original man and woman went on all fours. I am convinced that it is through the progress of evolution that we now walk upright on two legs instead of four, and I believe that the woman standing on two legs, with the column of blood having to run up hill from the pelvis, is, to a certain degree, an argument against her power to withstand fatigue that would not exist if she went on all fours. I am quite sure that the woman who stands upon her feet from twelve to sixteen hours out of the twenty-four, and especially during the menstrual period, must suffer, as a consequence, both locally and generally, more than man would suffer under the same hardships. The more delicate the woman, and the poorer the physique, the more marked the evil effect of the upright position for long periods of time. So I say, that the woman cannot make the fight with the world as successfully as the man does. She has this function of ovulation, menstruation, and child-bearing staring her in the face for thirty years of her life, and during which time she ought to be protected and cared for, and be allowed to rest as much as she is disposed.

Constipation is a very common thing with women. If the rectum and the colon are filled with fecal masses, this tends to keep up congestion of the pelvic organs. The pressure on the pelvic veins and upon the ascending vena cava tend to interfere with the return circulation. It is astonishing what an amount of fecal matter a woman will carry around in her abdominal cavity. In preparing women for operations, I find it necessary to give several days to the process of clearing out the intestinal tract; and, in spite of daily purges, it is found that, after the operation, the woman will sometimes discharge an enormous amount of fecal

matter, although in the interim she had taken nothing but fluid food.

It goes without saying, that if you tie a string around your neck moderately tight, you would expect a congestion of the brain. Well, women tie things around their waists, bands, and corsets, and petticoats, which prevent the expansion of the lungs, force the stomach and intestines down into the pelvis, and seriously interfere with the return of the venous blood to the right side of the heart. That the veins of the pelvis, which are poorly supplied with valves, should become dilated and congested, is only natural. Any inflammation of the vaginal mucous membrane, whether simple or specific, may extend into the cervical canal. Any displacement of the uterus backwards or downwards tends to produce congestion and chronic inflammation of the endometrium. Abortions and injury of the cervix during confinement at full term are common causes of endometritis.

What is the prognosis here ? Can these cases of endometritis be cured ? I should say that the chances were fairly good ; that the disorder, under proper treatment, will be greatly modified and probably cured. Much depends upon the habits and environments of the patient. I have found the following plan to give the most satisfactory results : First, I keep the woman under observation for a week, and ascertain by repeated examinations that she is not suffering from tubal disease or chronic pelvic inflammation. She is then placed in bed, an anesthetic administered, a Sims speculum introduced, the cervix seized and steadied with a small vulsellum, the cervical canal dilated with a steel dilator, if necessary, and now with a sharp curette the thickened and diseased membrane is very carefully and thoroughly removed from the entire uterine canal. The cavity of the uterus is then painted over thoroughly with a mixture of equal parts of carbolic acid and compound tincture of iodine. As soon as the effects of the anesthesia have subsided, a bed pan is placed under the woman and a vaginal injection of hot water is administered by the nurse. This injection is repeated every five or six hours until all tenderness and soreness have subsided. The patient is kept in bed for three or four days, after which she is allowed to go about her usual avocations. An application of the carbolic acid and iodine, by means of cotton-covered bamboo sounds, is made twice a week for a month. Treatment is then stopped, and if, at the end of another month, the leucorrhea is not practically cured, the curetting is repeated. Where the disease is

slight, the application of the carbolic acid and iodine will often effect a cure after six or eight weeks' treatment. When any application is made to the uterus, I find the glycerine and cotton tampon of decided advantage.

THE TREATMENT AND MANAGEMENT OF ASTHMA.[1]

By THOMAS J. MAYS, M. D.,

Professor of Diseases of the Chest in the Philadelphia Polyclinic, and Visiting Physician to the Rush Hospital for Consumption, of Philadelphia.

Asthma is a paroxysmal disease of the pneumogastric nerves, which throws the muscular fibers of the bronchial tubes into spasmodic contraction. Its prominent symptoms are itching of the head and neck, oppression and tightness of the chest, dyspnea, bloating of the abdomen, pain in the region of the diaphragm, cough, expectoration, and fever. Its causes are predisposing and exciting. (1) It may be inherited as asthma, and it may appear in children who come from consumptive or nervous families. It seems as if there is a predisposition necessary before the disease can develop. (2) Among the exciting causes are the inhalation of dust, powdered ipecacuanha, pollen of grasses and of roses, odors of certain animals, as cats, sheep, etc. Reflex excitation coming from the nose, stomach, liver, intestines, uterus, etc. Its relation to hay fever is very close. Practically, there is no difference between the two. I find that that which relieves the one will also relieve the other.

Its treatment resolves itself into that (1) which aims to give immediate relief from the paroxysm, and (2) that which aims to prevent a recurrence of the paroxysm. Those remedies which relieve the paroxysm may be classified as follows: (1) Central narcotics, consisting of morphine, belladonna, strammonium hyoscyamus, tobacco, chloroform, ether, ethyl bromide, ipecacuanha, sangunaria, etc., and (2) the peripheral narcotics—amyl nitrite, sodium nitrite, pilocarpine, etc. Now, all our more or less powerful therapeutic agents are stimulants to the general or special bodily tissues which they affect, in small doses; while in large doses they paralyze the same. All the above-named agents only relieve asthma when given in large or paralyzing doses: the central narcotics exerting their influence on the central nervous system; the emetics acting on the pneumogastric filaments, while the

1. An abstract of a lecture delivered to the class in the Philadelphia Polyclinic, November, 1892.

peripheral narcotics paralyze the vaso-motor or sympathetic nerves, which supply the unstriped muscular fibers of the bronchial mucous membrane and blood-vessels. While all these agents relieve asthma, and, indeed, in some cases are indispensable, it is quite clear that, in doing so, they lower or depress the functions of the parts on which they act, and that they do not, therefore, come up to the ideal of an asthmatic remedy. The best among them are nitro-glycerine, one or two minims of a one-per-cent. solution every three or four hours by the mouth, and one-twentieth or one-tenth of a grain of morphine, hypodermically, once or twice a day.

What, then, is the remedy which may be given continuously for the alleviation of this disease, and without the undesirable effects of the above-named classes? Which drug will relieve asthma in stimulant doses? Such a drug, I believe, we possess in strychnine. Of course, we must bear in mind that all stimulants are only supplementary agents which maintain the functions of the body without adding material support to the same; but there is also good reason for believing that they cause the tissues to appropriate a larger amount of nutritive material than they would otherwise do, and in this way our stimulant drugs become tissue builders. It has been shown that the power of strychnine in this respect is greater than that of any other stimulant. This drug has a special affinity for the nervous system, which action is especially accentuated on the respiratory center and pneumogastric nerves. In stimulant doses it gives a supporting influence to the respiratory movements, and, unlike morphine, lobelia, belladonna, or nitro-glycerine, it does not depress or narcotize the nervous system.

Asthma being a spasmodic disease, in what manner does strychnine bring relief? How does it act as antispasmodic? The most probable theory of the spasmodic state is, that there is at the beginning of the paroxysm a superabundant discharge of nerve force through the pneumogastric nerves, which throws the bronchial muscles into contraction. But, whatever the intimate nature of this condition may be, it is evidence of degradation or nerve weakness; and strychnine, by elevating the tone of these nerves, increases the controlling power of the same. A stimulant dose of strychnine will depend on the age of the patient, and the length of time during which the drug has been given, although asthmatics, as a rule, will bear larger doses of strychnine than most other patients. Begin, as a rule, with one-thirtieth of a grain subcutaneously once a day, and gradually increase to one-twentieth or one-tenth of a

grain, or more if necessary to impress the system with its full stimulant effects. Do not waste your time with small doses. To these amounts of strychnine small doses of from one-four-hundredth to one-six-hundredth of a grain of atropine may be added. It is best to administer these drugs in the evening, because asthma is nocturnal in its attacks, and your patient should be protected at night, so he can sleep. Additionally to its hypodermic use, this drug may be given in the following combination :

R. Phenacetini.....gr. lxiv.
Quiniæ Sulph.....gr. xxxii.
Ammon Murias.....ʒiss.
Pulv. Capsici.....gr. iv.
Strychninæ Sulph.....gr. 1½.
M. Ft. Capsulas No. xxxii.
Sig.: One capsule four times a day.

Or in the following:

R. Strychnine Sulph.....gr. 1½
Syr. Acid Hydriodici.....ʒij.
Syr. Hypophosph.....aa fl.
M. Sig.: One teaspoonful four times daily.

In fact, light cases of asthma require no hypodermic injection, and do well enough when the above-named preparations are given. In severe cases it is, of course, advisable to add morphine or nitroglycerine to the strychnine and atropine treatment, especially at the beginning. This treatment will break up the paroxysms, but even after they are broken, many old asthmatics still remain in the most abject misery. They may be compelled to sit up day and night panting for breath, and still labor under the impression that they are suffering from asthma. This is a mistake ; it is not asthma, but the natural state of exhaustion which follows asthma. The respiratory movements, as well as the whole nervous system, are almost completely paralyzed. It is the disorder and chaos following the flood. The dyspnea is not paroxysmal as before, but is felt now on the slightest exertion. This stage of the disease is most important from a therapeutic standpoint. Nitroglycerine, lobelia, and other narcotics are of no use. Rest is most essential now. They must do absolutely nothing. Lie down if they can, or sit still. They should even be fed. I have known patients who were breathing comfortably bring on a most severe exhaustion,—dyspnea—by merely undertaking to write a letter. During the rest-treatment give food of the most nourishing char-

acter, such as freshly expressed beef juice—a cupful a day—beef-powder, beef, mutton, milk, oysters, clams, etc. In this stage, strychnine is also of the greatest value. Massaging is also to be used in desperate cases. Electricity is also of great service. So are rarefied air and calisthenic exercises obtained in the pneumatic cabinet treatment. To procure sleep at night, morphine may be added to the hypodermic injections of strychnine.

Success in treating asthma depends as much on the proper management of the individual as it does on the administration of drugs in the proper doses and at the proper time. Principles can only be carried out by paying attention to details; hence, each patient must be under the complete control of his physician in regard to his food, medicines, exercise, and everything else. This pertains particularly to old asthmatics who are constant sufferers. If the instruction which is given this evening is closely followed, there are very few cases which will not yield; and, as an illustration of what may be done in desperate cases, I will conclude by relating the condensed histories of the two following examples, the second of which is still under occasional observation:

Case I. A., aged 46, a sufferer from asthma for thirty-five years, the attacks becoming more frequent and severe during the last three years. For four weeks before coming under treatment he had been unable to lie down, on account of the disease. The hypodermic injection of strychnine, one twenty-fifth of a grain, and morphine, one-fifteenth of a grain, gave him almost immediate temporary relief. The morphine was discontinued after the second day, and one minim of a one-per-cent. solution of nitro-glycerine every four hours was substituted. The strychnine was gradually increased, and the nitro-glycerine omitted in the course of a week. Additionally, he was kept quiet, received nourishing food, and strychnine by the mouth. In three days he was able to lie down, and in ten days more the asthma had disappeared.

Case II. B., aged 50, an asthmatic for twenty-five years. Daily attacks for one year, during which time he had been unable to lie down, day or night. Came under observation about six weeks ago, and received about the same treatment as the previous case. The relief was prompt after each injection, but the hypodermic injections had to be continued nightly for five weeks to keep the stubborn disease in abeyance. In two weeks he was able to lie down, and is now practically well.

A Serious Affliction.—"Well, I see old Mithomer has died at last."

"Yes; it was a sad loss to me."

"I didn't know you were a friend of his."

"No; I was his physician."—*Life.*

Clinical Report.

A LARGE OVARIAN TUMOR.

By MARY A. DIXON JONES, M. D., Brooklyn, N. Y.

In the September number of the Journal is an interesting account of the removal of an Ovarian Tumor of Unusual Size, by Charles H. Richmond, M. D. Allow me also to report the successful removal of an ovarian tumor of large size, though not weighing quite as many pounds as the one mentioned by Dr. Richmond, which "weighed fully eighty pounds." In my case the cyst contents weighed near sixty pounds.

The patient, Mrs. N., first consulted me in March, 1889; abdomen enormously enlarged; said, "for the past six years her life had been a burden to herself and family." Some months previously she had consulted a physician, who told her she had dropsy, and treated her for the same. Subsequently, she consulted another physician, who "said she had a very large tumor, and the only possible relief was an operation."

The father of the patient advised her to see a woman for whom I had performed an operation a year previously. She did so, and this patient of mine strongly urged Mrs. N. to consult me. I diagnosticated at once an ovarian tumor, and told the patient it should be removed without delay. She was anxious to have this done, and entered the Woman's Hospital, of Brooklyn, March 27, 1889.

A few days after, everything was prepared for the operation, but at the last moment the patient's courage failed. She was so nervous that I told her she could put it off, or, indeed, not have the operation at all unless she wished. Before another week had passed, she was more anxious than ever that it should be performed.

There were the usual preparations as for abdominal section—perfect antisepsis in everything. I first made an incision of about three inches in the tense abdominal walls. The sac was exposed; I introduced a trocar, drew off the fluid, removed the cyst, flushed well the peritoneal cavity, and closed the abdominal wound.

The whole operation was concluded in less than half an hour. The patient made an excellent and rapid recovery. The wound healed readily, and the patient was able to leave the hospital on the 18th of April, as she said, "a well and strong woman."

163 DeKalb Avenue.

Selections and Abstracts.

THE REMOVAL OF THE UPPER MAXILLARY NERVE AT THE FORAMEN ROTUNDUM.

By M. STORRS, M. D., of Hartford.

[From Transactions of the Tenth International Medical Congress, Berlin, 1890.]

The operation which I am about to describe is the division of the second branch of the trifacial nerve at the foramen rotundum, and its entire removal. It does not necessarily include the removal of Meckel's ganglion, but the removal of the nerve beyond the ganglion divides the posterior dental nerve and the spheno-palatine branches.

Operation.—The nerve is removed in the following manner: A curvilinear incision is made along the lower border of the orbit through the lid. The periosteum is divided and lifted from the floor of the orbit, the eye being held up by a spoon-shaped spatula, the handle bent at an angle of ninety degrees. The nerve is laid bare in the orbital groove; sometimes it is found covered with a thin layer of bone. If there should be any difficulty in finding the nerve, a probe can be passed through the infra-orbital foramen, and be carried into the orbit. The nerve is then lifted from the groove with a small strabismus-like hook, and a ligature is placed around it, about three-quarters of an inch from the edge of the orbit. This ligature gives full control of the nerve. It can be stretched, or changed in its direction, having already been divided externally to the ligature.

Using a small, thin, narrow, curved, dental spatula, the end perhaps serrated, the dissection can be carried backward to the foramen rotundum, separating the nerve from all the other tissues. Should the spheno-maxillary fissure be too narrow for entrance into the fossa, which happens when the antrum is high, it can be depressed by pushing a wedge of steel, something like a screw-driver, under the sphenoid bone, and depressing the floor of the orbit downward and inward. No harm is done in this depression.

The deeper dissection divides or separates the posterior dental and spheno-palatine branches from the maxillary nerve. The instrument feels the resistance of the bone when the foramen is reached, just about two inches from the edge of the orbit. The

ligature, holding the nerve; is now drawn through a wire loop or snare. This needs to be made with great care; otherwise the nerve will be drawn down into the canula, and it is not, from its strong and elastic character, divided. The one that I have used for this purpose is a small steel canula, slightly curved, flattened at the end, and sharpened. The loop is pushed backward by the spatula already spoken of, and when it reaches the foramen, it is tightened and the nerve is divided. The portion of the nerve controlled by the ligature is now removed, about one inch. By a slight dissection downwards from our first incision, the nerve in the infra-orbital foramen is now drawn out by gathering up with a hook the mesh of branches going to the cheek. The nerve is then put into a loop of a threaded needle, and carried down into the mouth, leaving the end which had been divided in the middle of the orbit suspended between the upper alveolus and the cheek. The divided ends of the nerve are now some three inches apart, and the ends are no longer opposed to each other. This reversing of the distal portion was first suggested by the late Dr. Hodgen, of St. Louis. This bit of surgical strategy makes a reunion impossible. The operation is done antiseptically, and is completed by putting cat-gut drainage into the groove passing out through the orbital foramen, and from there carried either directly through the cheek or made to follow the nerve down into the mouth. The wound is then closed.

Remarks.—This operation is made very simple and easy (1) by the depressing of the floor of the orbit, thus affording ample room; (2) by the ligature controlling the nerve, which, when stretched, becomes a guide to the foramen rotundum; and (3) by the wire loop, which cannot injure other structures. Again, there is no disfiguring of the face in this operation, and neither can any of the deep-seated parts receive any injury from the loop. It cannot wound the terminal branches of the internal maxillary in the fossa, and in the orbit all the parts are above the place of our operation; as the optic nerve passes through the optic foramen, the second, third, and the ophthalmic branch of the fifth nerve pass through the sphenoidal fissure. The muscular attachments are also all above. All the inconvenience arising from the loss of this nerve is the impairment of sensation.

Results.—My first operation was done four years ago, and there has been no return of the neuralgia. The relief was so perfect, and the operation so slight, that the patient, a man aged seventy-

five, declared that, if it were necessary, he would have the operation done every week. Two subsequent cases have been alike successful. When failure has resulted after the various attempts to remove this nerve, it may be due (1) to the division of the nerve on the distal side of the posterior dental nerve, which, we believe, from its distribution is more frequently the cause of trouble than the sphenopalatine branches going to Meckel's ganglion, or (2) to intercranial disease which might have been more accurately diagnosticated, or (3) to a restoration of the exsected nerve. We cannot absolutely determine how far the nerve, whose ends are left in a long channel, might reach to unite, but the great displacement of the ends of the nerve, when reversed, makes a reconstruction impossible.

THE USES AND EFFECTS OF GUDE'S MANGANIFEROUS IRON PEPTONE (LIQUOR MANGANO-FERRI PEPTONATUS GUDE).

By DR. HEITZMANN.

[*Journal of Balneology and Dietary, September, 1892.*]

The employment of iron preparations, both in essential anemia (chlorosis) and in the symptomatic forms of this affection, produced by severe losses of blood, dates to the earliest times. Long before the chemical relation of this effect was known, these remedies were administered on the ground of pure empirical experience.

When Hannon pointed out the high significance of manganese, as well as of iron, with regard to the absorption of oxygen by the blood, and when this discovery was confirmed by Ruehle, efforts were made to produce, by combination of both remedies, preparations which would best fulfil the therapeutic indications in all directions.

Former attempts of this kind failed to give the desired results. The aim was to combine both metals in such a form as would enable them to be absorbed throughout the entire extent of the alimentary canal, and, at the same time, be devoid of disagreeable taste, which would prevent their prolonged administration. After a series of experiments made in this direction, I found, in the preparation discovered by Dr. A. Gude, the liquor mangano-ferri peptonatus, a remedy which fulfilled the above requisites, and can recommend it most heartily.

This liquor mangano-ferri peptonatus (Gude) is a clear, dark, wine-red fluid, having an agreeable, non-metallic, astringent taste. The latter property gives it a great advantage over other similar preparations, for the remedy is always taken with pleasure, and may, therefore, be administered for a long time without exciting the disgust of the patient. No irritation of the stomach is produced, nor is the digestion disturbed in the least respect; indeed, as regards the latter, a stimulation of the long absent appetite could be demonstrated within a short time.

The liquor mangano-ferri peptonatus (Gude), usually mixed with some water, is prescribed in doses of two or three dessertspoonfuls, increased to as many tablespoonfuls, per day. An especially agreeable manner of administration is by addition of cold milk, which then assumes a light chocolate color and an agreeable taste. Prescribed in this form, we obtain from this preparation everything that could be expected from a remedy for anemia. The tincture may also be mixed with white and sweet wines, excepting the red wines, which contain tannic acid, and an occasional change in the manner of administration is sometimes of advantage, especially in the case of children.

The diet, during the use of this preparation, should consist of milk, meats—especially ham—fowl, soft-boiled eggs, and other easily digested foods. On the other hand, sour and fatty foods, red wines, and raw fruits are to be avoided.

The remedy is to be administered for a number of weeks, especially in cases of chlorosis, but in the case of young girls, up to twelve years of age, it is best to commence with a daily dose of two teaspoonfuls (ten grammes). In adults, the dose of the tincture may be increased in a few days to one tablespoonful twice or thrice daily, or even to ten or twenty grammes. The preparation should be well protected from the light, and preserved in a cool place in a well-stoppered bottle.

I have employed the tincture with much success, both in chlorosis and in cases of anemia in girls and women, due to loss of blood, menorrhagia, metrorrhagia, inflammation of the pelvic organs, peri- and parametritis, or prolonged leucorrhea. In almost every instance I observed, within a short time, increase of appetite, improved nutrition, healthier color of the face, and increase of weight. I was surprised to learn how much more readily the liquor mangano-ferri peptonatus was taken than similar preparations, without ill effects, even after protracted use.

To illustrate my remarks, I will cite a few cases. I will first report a case of chlorosis, treated with this remedy, which was under constant observation :

The patient, a school girl, aged 16, began to menstruate one year ago, but, after appearing regularly for three periods, the flow suddenly ceased, probably in consequence of mental over-exertion, and symptoms of chlorosis soon developed. The various preparations of iron were tried, but were either not well borne or excited so much disgust that they were discontinued by the capricious patient. A milk cure was prescribed, but followed for only a short time. When, however, I resorted to the liquor mangano-ferri peptonatus (Gude) I was surprised to find that the girl took it willingly, and that it was well borne. She made a rapid recovery, and, after the use of two bottles, had regained her former healthy color, while her strength and menstruation returned.

Case II. A married lady, aged 24, had acquired—apparently of abortion at a very early period—an immense peri- and parametritis with an exudation of the size of a child's head. The latter disappeared almost completely under suitable treatment and rest, so that only a slight induration was present in the parametrium after three weeks. Owing to the considerable anemia and loss of appetite, however, the patient recovered very slowly, and, for this reason, I ordered the liquor mangano-ferri peptonatus (Gude). A few days after its use the appetite reappeared, recovery ensued rapidly, and five weeks later her health was completely restored.

Case III. A married lady, aged 30, had suffered from leucorrhea, due to catarrhal inflammation of the vagina for two years, and, although the local trouble had been much relieved, she continued pale and weak. As her chlorotic daughter, at the time, was taking the liquor mangano-ferri peptonatus (Gude) with marked benefit, I advised her also to try this preparation. She followed my advice, and after fourteen days the weak, sluggish, and pale woman seemed as if transformed. She has since regained her former health.

These few cases, which were under continued observation, will confirm what has been said above regarding the manner of application and the effect of the liquor mangano-ferri peptonatus. I regard it as superfluous to cite other cases, since a few closely observed cases teach more than a host of superficial observations.

On the ground of my experience, I consider myself warranted in directing the attention of physicians to this remedy, and feel convinced that further trials will give equally favorable results. Even in cases where local treatment is necessary, the liquor mangano-ferri peptonatus (Gude) will prove a valuable auxiliary in our treatment.—*Allgemeine Wiener medizinische Zeitung*, xxxvi.

INCOMPATIBILITIES IN PRESCRIPTIONS.

Some time ago a prescription was sent to me from one of the Southern States, by a former pupil. If the object of the author of this prescription was to crowd as many incompatibilities as possible into a short prescription, he has succeeded pretty well.

The reactions occurring when this prescription is compounded are simple, and should be understood by any student who has taken a college course in chemistry, but the prescription is an interesting one from the number of distinct incompatibilities it presents, there being about as many as there are ingredients in the mixture. It is as follows:

Tincturæ ferri chloridi	ʒ iss.
Sodii hyposulphitis	ʒ iss.
Potassii chloratis	ʒ iij.
Quininæ sulphatis	gr. xv.
Aquæ	℥ ij.

The original dispenser mixed the several articles in the order in which they are written above, save the water, a portion of which was used to dissolve the sodium thiosulphate. If the several reactions which occur in this case are noted, they will be found to be as follows: On adding the solution of the thiosulphate to the tincture of iron, the brown color of the latter is quickly changed to the pea-green characteristic of ferrous compounds, and, at the same time, a slight milkiness, due to the separation of sulphur, occurs.

The ordinary tests for ferric iron show that all the ferric salt has been reduced to ferrous. At this point, the mixture probably contains ferrous chloride, sodium sulphate and sodium thiosulphate, the reaction being as follows: $2Fe_2Cl_6+2Na_2S_2O_3+2H_2O=4FeCl+2Na_2SO_6+4HCl+S_2$.

The hydrochloric acid set free is immediately decomposed by the thiosulphate, with the evolution of SO_2.

These two decompositions leave about sixty-six grains of sodium thiosulphate still undecomposed.

On adding the potassium chlorate (180 grains), this remaining quantity of thiosulphate is entirely decomposed, and the ferrous chloride again raised to ferric chloride. One molecule of potassium chlorate will give up enough oxygen to convert six molecules of ferrous chloride into ferric salt, and six molecules of free hydrochloric acid will be required to satisfy the increased valence

of the ferric iron. Inasmuch as the acid set free by the reduction of the ferric chloride originally used was destroyed by the thiosulphate, at least one-third of the iron will be precipitated as oxide, as shown by the following equation: $6FeCl_2+KClO_3=2Fe_2Cl_6+Fe_2O+KCl$, or, more probable, two-thirds of the iron will be precipitated as oxychloride, and one-third remain in solution as chloride. In either case, the amount of potassium chlorate decomposed is the same, amounting to only about one and one-half grains, and leaving an abundant supply for the decomposition of the sixty-six grains of sodium thiosulphate which still remained, and which is promptly oxidized to sulphate, as follows: $6Na_2S_2O_3+2KClO_3=6Na_2S_2O_4+2KCl+3S_2$. Not quite eleven grains of potassium chlorate is required to decompose the above quantity of crystallized sodium thiosulphate, making a total loss of chlorate of about twelve and one-half grains, and leaving a large excess for the next reaction, which occurs after the quinine is added, when, owing to the insolubility of the chlorate of this alkaloid, it exchanges its acid radical with the potassium chlorate, forming, of course, an equivalent quantity of potassium sulphate. This is especially noticeable if the quinine salt is dissolved before adding it to the mixture.

Our curious and unusual series of reactions is now complete, and the vial contains ferric chloride and oxychloride, precipitated sulphur, sodium sulphate and chloride, potassium sulphate chloride and chlorate, and quinine chlorate. The question as to what the physician who is responsible for this aggregation of incompatibilities intended to administer, remains a mystery; that of the expected effect upon the patient has excited the curiosity of several members of the profession. With these questions the pharmacist is, perhaps, not legitimately concerned, and *the average medical student continues to look upon the time he is obliged to spend in the study of chemistry while at college as simply wasted.*—E. B. Stuart, in *The Apothecary.*

RECENT MEDICAL JURISPRUDENCE.

By HENRY A. RILEY, A. B., LL. B., New York.

PRECOCIOUS WICKEDNESS.

The annals of crime contain few cases so remarkable in precocious wickedness as an investigation developed a short time since in England. There were two boys, named Shearon and Crawford,

aged respectively eight and nine years of age, who were arraigned before a magistrate for drowning another lad, named Eccles, who was eight years old.

Shearon and Crawford, who were vicious children, plotted together to take the clothing of the first well-dressed boy they met. They induced Eccles to go with them and take a swim. The pond where they took him was twelve feet deep in some parts, and they got a raft and paddled it to one of the deep places. They then pushed Eccles off, and although he made frantic efforts to save himself, they would not let him on the raft again for a long time. After a while they pulled him up, and, towing the raft to where it was a little deeper, pushed him off again. He pleaded hard for his life, but they had no mercy, and soon Eccles' strength gave out and he sank under the water. The two boys then conveyed the body to the shore and beat it until they were sure it was dead.

After watching it a considerable time, and seeing no movement, they divided Eccles' clothing and went home. When the boys were arrested shortly afterward, they confessed all the horrible details, but without apparent feeling.

So extraordinary a case seems to baffle all criminal procedure, and to make uncertain what course to pursue. It does not seem possible that boys of such a tender age could, under any circumstances, be executed for murder, but the wickedness of the crime could hardly be exceeded by men of mature age.

ARE HYPODERMIC INJECTIONS OF MORPHINE LAWFUL?

A suit has just been begun, in South Dakota, by a Mrs. C. M. Sweitzer against a doctor living in Aberdeen. She alleges that the doctor repeatedly "pumped morphine into her husband so that he became a morphine fiend," and being intellectually and morally a wreck, was unable to provide for her support. The medico-legal questions involved in this suit are of considerable interest, as what is called the morphine habit is becoming one of the notable medical signs of the day. The facility with which hypodermic injections can be made, and their possible results when long continued, make it the duty of the physician to be careful when he adopts such a line of treatment.

Some of the newspapers are clamoring for a law placing some restrictions upon the administration of morphine, alleging that it is as dangerous as the sale of liquors to minors. Whether the

consent of parents or husbands is necessary to make a hypodermic injection of morphine proper, is a question which has never been before a court for decision, but if heavy doses were given and continued for a considerable length of time, without informing the patient of the character of the treatment, and evil results followed, it is very probable that the physician would be liable in damages.

BLOOD POISONING AND CASES OF ASSAULT.

Some curious medico-legal points were recently developed in an ordinary assault and battery case in New York City.

The wife of a professional light-weight boxer and pugilist, who was dignified by the title of "Professor Haley," was accosted at night by a man in the streets, who followed her to her home. She tried to get away from him, but he went into the house directly after her.

She then called up-stairs to her husband, who came down quickly to chastise the intruder. He took to his heels, but the athletic training of the Professor enabled him to catch up with the fleeing man, and in the scuffle which followed, the stranger was struck in the mouth and two of his teeth knocked out.

The Professor's knuckles were badly cut as the result of the blow, but he paid no attention to them until they began to swell and the arm to grow painful.

The physician who was called in pronounced the case one of blood poisoning, and, although everything possible was done for the sufferer, he became worse, and it was decided that amputation could not even save him. Death occurred in about a week. The offender was not arrested, and no clue was found, when the case was decided to be one of blood poisoning.

LEGISLATION FOR THE PROTECTION OF THE EYE.

The Maine Legislature, at the last session, passed the following law:

SECTION 1. Should one or both eyes of an infant become reddened or inflamed at any time within four weeks after its birth, it shall be the duty of the midwife, nurse, or person having charge of said infant, to report the condition of the eyes at once to some legally qualified practitioner of medicine of the city, town, or district, in which the parents of the child reside.

SEC. 2. Any failure to comply with the provision of this Act shall be punishable by a fine not to exceed one hundred dollars, or imprisonment not to exceed six months, or both.

This law was modeled after a similar law placed on the statute book in New York in 1890, and was, no doubt, prompted by the fact that blindness or serious disease of the eyes dates, in many cases, from birth, and could be avoided by prompt medical treatment. Legislation of the same character will be proposed in other States at the next session of the Legislature.

THE DEFECTS OF OUR IMMIGRATION LAWS.

The number of immigrants to this country does not seem to decrease under the workings of the new Federal law, as only a trifling number can be actually shown to be suffering from insanity, or dangerous contagious diseases, and there are many ways of temporarily placing enough money in the hands of the shiftless emigrant, so that he will not seem to be necessarily a public burden. The public sentiment of the country is certainly crystallizing in favor of more stringent laws on the subject, and the visit of Mr. Weber, the chief of the Immigration Bureau at New York, to the principal ports of embarkation in Europe, will be likely to furnish valuable information in regard to the best methods of restriction.

The most effectual remedy would probably be a charge of $25 for each steerage passenger landed, but this would be sure to cause bitter opposition on the part of a large number of foreign-born persons now in this country. The tendency of immigration toward this land is strikingly illustrated by the reports just issued by the English customs department. This shows that of 69,087 pauper immigrants who landed at British ports during the first six months of this year, 53,177 were described as being *en route* to the United States.—*North American Practitioner.*

SPECIALISM IN MEDICINE—PARTICULARLY AS RELATED TO SURGERY AND GYNECOLOGY.[1]

By WILLIAM WARREN POTTER, M. D., Buffalo, N. Y.

[*Abstract.*]

THE time has passed when we may, with propriety, discuss the needfulness of specialism and specialists, because they have grown to be a necessity, and it would not be possible to return to the old way. No one man can cover the whole professional field in teach-

1. Read at the fifth annual meeting of the Southern Surgical and Gynecological Association, in Louisville, November 16, 1892.

ing or practice, because it is already too large, and is constantly widening. If specialists, then, are a necessity, the next question to be considered is the method of preparation for the practice of a specialty.

It is observed that specialists sometimes enter upon practice without adequate preliminary instruction for the work ; and again, they have gone out of the medical schools and immediately begun practice in special lines. Either of these roads to specialism are open to condemnation. Specialists should be properly trained by four years of school life, and then spend six or eight years more in private practice, post-graduate study, and foreign travel. Hence, it would appear that fourteen years is about the average time from entry upon the study of medicine to properly develop a specialist. If specialists are thus trained, they will less frequently fail to recognize the fact that a local fault is oftentimes only an expression of a general dyscrasia, and that the general system frequently needs attention quite as much as the local manifestation of the malady.

The relation of specialists to general practitioners is an important subject for consideration. If there has sprung up an apparent antagonism between them, the specialists themselves must put it down. It is well to recognize the fact that specialists need help from the general practitioner quite as often as the general practitioner needs help from them; and it will be better for all concerned, and especially for patients, when physicians act on this principle.

A specialist must abandon general practice when he enters upon his chosen field of ministration. The reciprocal relations between specialists is also a matter important to consider, and care must be taken that each department confines itself strictly to its own work and does not encroach upon the boundaries of territory properly belonging to others.

The ethics of specialism may be formulated very simply, and do not require a decalogue of dogmas for its exposition. In 1840, Samuel Jackson, in addressing a class at the University of Pennsylvania, said : " Every man of good sense, possessed of honorable sentiments, and a moral feeling of right and wrong, by the instinct of honesty will know how to conduct himself without a code to regulate his deeds." This is about the sum and substance of all ethics, and is adequate for the government of specialists as well as general practitioners.

The responsibilities of the specialist are now greater than at any other time in our history. The improved methods of teach-

ing in the schools; the massive excellence of medical literature; increased clinical opportunities, and separate State medical examining and licensing boards, all contribute to improve the quality of physicians, and this must apply with as much force to specialists as to others. Schools, however, should be restrained in their tendency to encourage specialism. Their whole energy should be addressed to the teaching and equipment of men for general practice. Specialists will evolve fast enough from the general practitioners so sent out, and this should be the only road to the practice of a specialty.

If general practitioners have become disturbed by the circumstance that tramps have sometimes taken possession of a portion of their territory, they may be consoled with the fact that there yet remains enough to cultivate, and that specialists will be only too glad to assist in driving out these intruders. The argument, then, is:

First.—There is essential need for specialists. Divisions of labor in every field are demanded, and nowhere more than in medicine.

Second.—Specialists being a necessity, they must equip themselves by years of study, and devote themselves to a still greater number of years of general practice before they are justified in offering themselves as specialists.

Third.—They must conduct themselves in such a way as to merit the respect of the general practitioner, and to invite his coöperation in their work.

Fourth.—The unwritten ethics of specialism demand that reciprocal relationships be maintained, not only among specialists themselves, but also between specialists and general practitioners.

Fifth.—The opportunities for perfection in special lines of medical study are so great, and medical literature, in both journalistic and text-book form, is so rich, that weighty responsibilities are entailed upon the specialist, which must be discharged with fidelity and honor.

Sixth.—The schools ought to discourage any and all students who give promise of entering upon the practice of a specialty as soon as the college doors are passed, and before the swaddling clothes of the professional tyro are slipped.

Seventh.—The kinship between surgery and gynecology—between the general surgeon and the gynecological surgeon—ought to be strongly encouraged and maintained. Neither should trench upon the territory naturally belonging to the other, and to conserve these reciprocal relations ought to be the pride of this Association.

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THE FIRST PAN-AMERICAN MEDICAL CONGRESS.

WHEN the proposition was made to organize a medical congress, to be composed of physicians delegated thereto from all the countries of the Western Hemisphere, it was considered by many as a visionary scheme, or one of doubtful propriety. In view of the multiplication of medical congresses, societies, associations, and organizations, local, State, national, and international, we are not surprised that many felt doubtful regarding the new proposition. It required boldness, energy, sagacity, patience, and endurance to construct the machinery which should furnish motive power for such a vast organization, and to pull the throttle that should set it in motion after all its parts had been put together.

When the history of the first Pan-American Medical Congress is written, it will be found that, no matter who else may have contributed to its success, the great responsible head for its conception and organization is its accomplished Secretary-General. When the Committee of Organization met together to choose the President of the Congress, and other officers to coöperate with that official, it almost in one voice uttered forth the name of William Pepper. It would be difficult, in the United States, to find a man better equipped to be its presiding officer, and to furnish inspiration and impetus for the successful prosecution of its work, than the genius that has made the University of Pennsylvania such a center of educational power and erudition as has its learned provost. It is needless to remind the American medical profession that William Pepper never puts his hand to the lever unless the machinery moves, nor does he start it until it is certain to move in the direction of success. He is a man who never looks backward, who is constantly standing on the foremost and in the highest lookout, surveying the whole field and making plans for an advance all

along the line. Some of these thoughts have come to us after having examined the Preliminary Announcement of the First Pan-American Medical Congress which has lately come to our table.

We note that the meeting is appointed to be held in Washington, Tuesday, Wednesday, Thursday, and Friday, September 5, 6, 7, and 8, 1893. Some criticism has been passed upon the date of holding the meeting, but it must be remembered that several conditions confronted the committee when called upon to fix the date, and it had to be settled in a way to interfere as little as possible with other medical gatherings to be held during the year 1893. The eleventh International Congress which meets in Rome the latter part of September, must not be allowed to conflict with the American Medical Congress, nor must the several State and National societies be interfered with in their dates. So, too, must the teachers of the colleges be accommodated, who nearly all feel it their duty to be present at the opening of the several medical schools that usually begin their sessions between the middle of September and the first of October. So, taken all in all, it was thought best to fix upon the first Tuesday in September as the period in which to inaugurate this new all-American Medical Congress. The Preliminary Announcement, which is a duodecimo brochure of sixty-four pages, is the most comprehensive, detailed, and admirable announcement of a medical organization that ever before has been published. It ought to be the pride of every American physician that it is possible in this country, where the government does not primarily assume responsibility for such a meeting, to progress it to the stage indicated in this announcement, wholly by voluntary action on the part of the physicians of the United States.

We need not, at this time, call attention to the work that it is proposed to do at the Congress, but, when we remember the recently threatened cholera invasion, it will appear at once important that quarantine and public sanitation should be discussed by representative medical men in the Western Hemisphere, with a view to establishing some uniform system in regard to the prevention of epidemic infectious diseases. This, if we mistake not, will be one of the important functions of the Congress. Only second in importance thereto will be the question of medical education, medical teaching—medical pedagogics, if you please—which will be considered in the section on Medical Pedagogics, to be presided over by Dr. J. Collins Warren.

The importance of prompt registration is urged upon all. The Secretary-General has issued a circular upon the subject, showing the great expense of the preparations for the Congress, which must be met by advanced registration. Any physician who desires to become a member should send the registration fee, $10.00, to Dr. A. M. Owen, Treasurer, Evansville, Ind. The confusion incident to registration on the first day, when so many are pressing their claims at one time, thus will be avoided, and all the publications of the Congress, preliminary and final, will be secured to the subscribers. Hence, let all physicians who desire to participate in the Congress register without delay.

TOPICS OF THE MONTH.

The Southern Surgical and Gynecological Association held its fifth annual meeting in Louisville, Ky., November 15, 16, and 17, 1892, and it may be stated that in all respects it was a creditable gathering of prominent medical men, principally from the South, who, during the sessions, contributed to make a volume that will be a valuable addition to the medical literature of the year.

It is not necessary at this time to speak in detail of this meeting, an account of which will go to the medical journals and also be published in the Transactions of the Association ; but it is pertinent to remark that for genuine hard work for three days in succession, this meeting deserves to rank among the busiest and best of all the medical gatherings in the United States held during the year 1892.

The Chairman of Committee of Arrangements, Dr. L. S. McMurtry, planned and executed a complete system of caring for the visitors, both in a scientific and social way, so that while the meeting went on with regularity and precision, there were yet sufficient social features to afford mental relief, though these did not interfere at all with the work of the Association.

Dr. W. E. B. Davis, the Secretary, exhibited great skill and discretion in preparing a valuable programme and in handling it well on the floor, so that no time was sacrificed and no member disturbed by being overlooked or pushed aside.

The election of Dr. Bedford Brown, of Alexandria, Va., to the presidency for the ensuing year was a fitting tribute to a faithful and industrious member, who has contributed to the scientific interest of every meeting, and who has attended, in person, each

and all of them. The Association honored itself in choosing Dr. Brown as its presiding officer for the coming year.

The next meeting will be held in New Orleans, beginning on the second Tuesday of November, 1893, and it is expected that many members will be interested in visiting the Crescent City with their wives and families ; hence, the attendance will be large. When the volume of Transactions for 1892 is issued, it will furnish interesting reading that will be sought eagerly by surgeons and gynecologists as well as general practitioners all over the land.

A Section of Railway Surgery of the Pan-American Medical Congress has been organized, with Dr. C. W. P. Brock, of Richmond, Va., as Executive President. A full list of officers has been provided for each of the constituent countries. At the eleventh annual meeting of the Wabash Railway Surgical Association—the first organization of the kind—Dr. C. B. Stemen, of Fort Wayne, was, by unanimous resolution, requested to prepare a paper on Organized Railway Surgery, and read the same before the Section on Railway Surgery of the Pan-American Medical Congress. At the same meeting, Dr. Hal C. Wyman, of Detroit, offered the following, which was unanimously adopted :

Resolved, That each member of this Association solicit his Congressman to interest himself in legislation in favor of the Pan-American Medical Congress.

A Bureau of Hygiene and Sanitation has been organized, to prepare a collective exhibit illustrative of the present condition of sanitary science, under the auspices of the Department of Liberal Arts of the World's Columbian Exposition. The aim of this bureau will be to show, as nearly as possible, the position in which the theory and practice of hygiene stands at the present day, and the superintendent, Dr. F. W. Brewer, has issued a circular of fourteen octavo pages relating to its functions and the executive details thereof. In this circular Dr. Brewer says :

It is hoped that the universities and colleges, the boards of health, State and municipal, the societies having hygiene and sanitation as their key-notes, the scientists, the physicians, the manufacturers, and the public generally will cordially coöperate in the endeavor to make the exhibition worthy of the science and of our country.

There is ample opportunity here for sanitarians, public health officers, boards of health, and all men interested in the prevention of disease to unite in contributing to the success of what ought to be one of the most useful departments of the Columbian Exposition to be held in Chicago next year. We hope that some of our local sanitarians will interest themselves in this bureau and will contribute something that will indicate that Buffalo is well to the fore in all questions relating to hygiene, sanitation, and public health.

One Way to Advertise.—A sample copy of a religious paper was received, presumably by a number of Buffalo physicians. Beneath the address label was stamped in large letters: "Sample Copy for Himself and His Most Devout Convalescing Patient."

In Dr. Landon Carter Gray's forthcoming Text-Book of Nervous and Mental Diseases, American physicians are promised a clear statement of a department of medicine of peculiar importance to them. The task assumed by the author is one of exceptional difficulty. It would have been comparatively easy to gather abundant literature upon a subject of such enormous growth, but to weigh, select, and condense requires exceptional qualities of mind. In a word, Dr. Gray has undertaken to provide students and practitioners with a compact volume containing a working knowledge of neurology, space being principally devoted to the diagnosis and treatment of all diseases belonging to this department. The series of illustrations will be largely original and singularly rich. The work is assured of the highest position as an authority for the physician and as a text-book for the student.

The U. S. Pharmacopeia, 1890, which will be published during 1893, adopts in great measure the metric system of weights and measures; this will doubtless create much confusion in the minds of physicians and druggists, and lead to many misunderstandings and errors. In order to provide a guide to the proper dosage, etc., Dr. George M. Gould, author of the New Medical Dictionary, has prepared a very complete table of the official and unofficial drugs, with doses in both metric and English systems; this table is to be published in P. Blakiston, Son & Co.'s Physicians' Visiting List for 1893, together with a short description of the metric system.

Personal.

Dr. Horace Clark announces that he limits his practice to diseases of the nose, throat, and chest. Consultation hours, 9 to 2. No. 21 West North street, Buffalo. Telephone, 1650.

Society Meetings.

The next meeting of the Buffalo Microscopical Club will be held Monday evening, December 12, 1892, in the lower lecture-room of the Buffalo Library building. The programme includes a microscopical exhibition on Diseases of the Kidney, and an essay on Some Recent Advances in Water Analysis, and the Use of the Microscope for the Detection of Sewage Contamination, by George W. Rafter, of Rochester, N. Y. Physicians are cordially invited to attend.

The next stated meeting of the Buffalo Academy of Medicine will be held at the Academy rooms, 639 Main street, third floor, Tuesday evening, December 6, 1892, at 8.30 o'clock. The section on Surgery has prepared the following programme: Operations upon the Kidney, by Herman Mynter, M. D.; Actinomycosis Hominis, by Roswell Park, M. D. All members of the Academy are earnestly requested to be present.

The American Orthopedic Association, at its recent meeting, held in the City of New York, September 20, 21, and 22, 1892, elected the following officers to serve for the ensuing year: President, Dr. A. J. Steele, St. Louis; Vice-Presidents, Dr. Samuel Ketch, New York; Dr. Arthur J. Gillette, St. Paul; Treasurer, Dr. A. B. Judson, New York; Secretary, Dr. John Ridlon, 34 Washington street, Chicago. The next annual meeting will be held in St. Louis, the third week in September, 1893.

It is a noteworthy fact (*Medical Review*) that not a single case of small-pox occurred during the year 1890 in the British army. If this be not evidence of the protection afforded by re-vaccination against a malady once so common—and still disastrously fatal in armies where this precaution is not vigorously enforced—then logic and reason are mere accomplishments.—*Ontario Medical Journal.*

Book Reviews.

DISEASES OF THE URINARY APPARATUS; PHLEGMASIC AFFECTIONS. By JOHN W. S. GOULEY, M. D., Surgeon to Bellevue Hospital. New York: D. Appleton & Co. 1892.

Dr. Gouley has revised, and D. Appleton & Co. have published, his lectures relating to diseases of the urinary apparatus, delivered before the class of the Bellevue Hospital Medical College during the year 1891.

A brief *résumé* of the early history of the practice of this branch of the surgical art is given in the introduction of this work, in which it is related that prosthectomy was commonly practised by several ancient nations, for the prevention of disease, two thousand years ago. Gouley might have recorded that prosthectomy is crudely self-performed by the youth of a savage African tribe for the purpose of gaining favor with the females, and with no thought of sanitary benefit. Again, it is related that another savage tribe execute external urethrotomy in the perineal region for the purpose of making a new exit of escape for the seminal fluid, and thus avoiding fructification. This plan is less harmful than some of the ways and methods practised by civilized races, who profane the sacred injunction to increase, multiply, and replenish the earth.

The urethral tract is divided into six parts, as follows: Prostatic, membranous, perineal, scrotal, phallic, and balanic.

The general pathology is divided sixteen times, as follows: Phlegmasic, stenotic, auxetic, echmatic, ectatic, lithic, neoplastic, adenic, blastomatic, cystic, entozoic, toxic, traumatic, allotrylic, teratic, and functional affections.

The following-named larvæ are alleged invaders of the urinary tract, namely: spiroptera hominis, diplosoma crenatum, dactylus aculeatus, as also are the following-named parasites: echinococcus homnis, distoma hematobium, pentastoma denticulatum, strongylus gigas, filaria sanguinis, trichina spiralis, and Gouley might have added pin-worms.

Diseases of the Urinary Apparatus is severely technical and classic, and reminds the reviewer of his attempt to read Rokitansky's Pathology, as a side line, when a first course student.

Dr. Gouley avers: "Nothing, so far discovered, has sufficed to explain the nature of the contagium of that variety of urethritis,

miscalled gonorrhea." Again, under the heading Methodical Treatment, he says: "To treat urethritis methodically and rationally, it is necessary to ascertain the nature, cause, etc., of the phlegmasic attack." How are we to treat the malady "methodically and rationally" when such able authority as Dr. Gouley affirms that its nature and cause have not been sufficiently explained?

Abortive treatment is justly condemned. The administration of balsams, local treatment by injections or irrigation during the second or acute inflammatory stage, is approved. Unfortunately, in spite of the numerous methods of treatment, in defiance of the numberless remedies and formulæ proposed in text-books and periodicals for the relief of this disease, numerous urethræ continue to weep. More, and worse even than this, is the infection of innocent persons by the contagion, borne and transmitted by cases of unrelieved specific urethritis. Why not hold to the good old name, "clap," made classic by long use? If the teaching of Noeggerath, Price, Sinclair, (Buffalo Medical Journal, page 488, March, 1891,) and many other eminent authorities is accepted, this is the most persistent, insidious, and virulent malady which afflicts mankind, and the body politic would be warranted in prescribing quarantine and a yellow flag for all cases of specific urethritis, whether affecting the urethra, vagina, uterus, or Fallopian tubes.

The theory of Neisser, that microbes (gonococci) are the cause of specific phlegmasiæ of the genito-urinary mucosa, was favorably received by the profession, and we had pinned our faith to it. By turning our microscope on the secretions from the morbid tracts, and finding gonococci, our diagnosis was certain; Dr. Gouley appears upon the scene, shatters our faith, and we are at sea again. Still, we must confess that the discovery of gonococci and the claim that these microbes are the cause of gonorrhea, or specific urethritis, has not led to additional successful treatment of this malady. Gorging the urethra with microbicides has not produced any more satisfactory results than the empirical methods which formerly prevailed, for the morning tear yet greets the waking hour.

The germs escape their enemy by dodging behind the epithelium and burying themselves in the submucous structures, and also find safety in the mucous crypts and glandular openings of the genital tract, where they grow fat on the products of phlegmasiæ produced by irritant, germicidal remedies. We fondly hoped that at last we had found a method of exact diagnosis, and

that by following its wake we would have rational and exact methods of treatment.

Diseases of the Urinary Apparatus is an able and scholarly production, and we only regret that differential diagnosis cannot be more positively made, and treatment more effectual and certain. It is evident that we have not yet reached the dawn of a venereal millenium. B. H. D.

The Uses of Water in Modern Medicine. By Simon Baruch, M. D., Attending Physician to the Manhattan General Hospital and New York Juvenile Asylum; Consulting Physician to the Montefiore Home for Chronic Invalids; formerly Chairman of the Board of Health of South Carolina, etc., etc. In two volumes. Physicians' Leisure Library. Detroit, Mich.: George S. Davis. 1892. Price, cloth, 50 cents; paper, 25 cents.

Cerebro-Spinal Meningitis. Its History, Diagnosis, Prognosis, and Treatment. By Martin W. Barr, M. D., Resident Physician in the Pennsylvania Training School for Feeble-Minded Children, Elwyn; formerly Resident Physician to the State Lunatic Hospital, Harrisburg, Pa. Physicians' Leisure Library. Detroit, Mich.: George S. Davis. 1892.

Contributions of Physicians to the English and American Literature. By Robert C. Kenner, A. M., M. D. Physicians' Leisure Library. Detroit, Mich.: George S. Davis. Price, cloth, 50 cents; paper, 25 cents. 1892.

Gonorrhea and Urethritis. By G. Frank Lydston, M. D., Professor of the Surgical Diseases of the Genito-Urinary System and Syphilology in the Chicago College of Physicians and Surgeons, etc., etc. Physicians' Leisure Library. Detroit, Mich.: George S. Davis. 1892. Paper, 25 cents; cloth, 50 cents.

These four books are among the latest outputs of the Physicians' Leisure Library series, that has become so popular and so useful. The first subject, Uses of Water in Modern Medicine, in two volumes, is handled most interestingly and instructively by Baruch. Few people pay sufficient attention to the use of water, either as a preventive, through its hygienic employment, or as a cure after disease or injury has occurred. There are many conditions of traumatism and disease that can be cured by water alone; or, to state it in another way, if we were limited to the employment of a single remedy, water would be chosen.

Cerebro-spinal meningitis is sometimes an obscure disease, especially in its approach, as the symptoms are so similar to many other neurotic disorders in the beginning; hence, it is important to watch carefully all the details of its manifestations and to be

familiar with the literature that helps to interpret these manifestations. Barr's little monograph is excellent.

In his Contributions of Physicians to English and American Literature, Kenner has opened up a new channel of thought, and developed a new line of subjects for the Physicians' Leisure Library. To our mind, it would be better to invite contributions of this sort to the series, occasionally, rather than to confine it strictly to the technically scientific side of medicine. Kenner's little monograph will afford an entertaining and restful hour to many a weary doctor.

Gonorrhea and Urethritis is a subject that Dr. Lydston is competent to handle satisfactorily, from his large experience in the management of diseases of the genito-urinary tract. In this book of 216 pages, copiously indexed and moderately well illustrated, will be found many a useful hint to the busy doctor, who must necessarily be prepared to deal with these diseases, while the cheapness of the book ought to carry it into the office of every physician in the United States.

Diseases of the Stomach. By Dr. C. A. Ewald, Extraordinary Professor of Medicine at the University of Berlin; Director of the Augusta Hospital, etc. Authorized translation from the Second German edition, with special additions by the author. By Morris Manges, A. M., M. D., Attending Physician to Out-Door Department, Mount Sinai Hospital, New York, etc. With thirty illustrations; octavo, pp. xiv.—497. New York: D. Appleton & Co. 1892.

The importance of the knowledge of the diseases of the stomach, always great, is now urged upon the attention of the profession with more force than at any previous period in the history of medicine. Since physicians have become more enlightened as to the part defective nutrition plays in the cause or aggravation of almost all maladies that the human body suffers from, there has been considerable attempt made in all quarters where science prevails to pursue the studies of nutrition and its defects. The general practitioner must familiarize himself with the knowledge of the chemistry of the juices of digestion, as well as the diseases that the digestive organs are liable to take on. The specialist, too, must be well informed with reference to the intricacies of all questions relating to the digestive tract, else he will often fail in removing the local manifestation of disease to which his attention is especially and naturally directed. These thoughts have suggested themselves to us after an extended and careful reading of Ewald's treatise.

The volume is made up by grouping twelve lectures relating to diseases of the stomach. Lectures I. and II., comprising seventy pages, treat of methods of examination, and the determination of the acidity and acids of the contents of the stomach, together with the determination of the digestion of albumin, starch, absorption, motility, and the technique of the examination of the stomach. Lectures III. and IV. treat of stenosis and strictures of the cardiac and pyloric orifices, as well as megastria, gastrectasia, and dilatation of the stomach. Lecture V. deals with cancer of the stomach, and Lecture VI, with ulcer of the stomach. Lectures VII. and VIII. are taken up with the consideration of inflammations of the coat of the stomach, while Lectures IX., X., XI. deal with neuroses of the stomach. The title of the final lecture is Correlation of the Diseases of the Stomach to Those of Other Organs; the Practical Value of the Modern Chemical Tests.

While it is important to recognize functional digestive faults and to make haste to apply the proper methods to remove them, it is of the greatest concern that practical physicians should learn to diagnosticate the earliest symptoms of ulcers, cancers, and new growths in and about the stomach. We are certain that no one can read what Ewald says on these subjects without reaching the conclusion that he is a master of the subject, for he speaks with an authoritative knowledge that commands the respect of his readers, who readily become his students. We cannot give an analysis of this work in the short space allowed for its notice ; every interested physician must read the book for himself ; he will be a better physician after he has done so, provided he reads it understandingly, and follows its general teachings with intelligence and determination. The type and paper of the work make it easy to study even with eyes that are no longer young, and we anticipate the book will become one of the leading text-books in the schools on the subject of which it treats.

Transactions of the Eighth Annual Meeting of the American Climatological Association, held at Washington, D. C., September 22, 23, 24, and 25, 1891. Octavo, pp. xvi.—276. Philadelphia: W. B. Saunders. 1892.

Though this Association has previously issued seven volumes, the one before us is the first that ever has come into the hands of the Journal. We are glad to have so valuable an addition to our library shelves as this book affords. The eighth annual meeting

was held in Washington, in September, 1891, and the papers contained in the volume have already been published, for the most part, in the journals. Whatever may be said of the value of journalistic literature, it is of vast importance that society transactions should be grouped in a single volume, where they can be readily referred to by the members and others interested. The work done by this Association at its eighth annual meeting was a credit to its members and an indication that the mission of the Association is being admirably fulfilled.

Diseases of the Nervous System. By Jerome K. Bauduy, M. D., LL. D., Professor of the Diseases of the Mind and Nervous System, and of Medical Jurisprudence, Missouri Medical College, St. Louis; late Physician-in-Chief to St. Vincent's Institution for the Insane; Corresponding Member of the New York Society of Neurology and Electrology; formerly Consulting Physician of the St. Louis County Lunatic Asylum; Member of the New York Medico-Legal Society, etc. Second edition. Philadelphia: J. B. Lippincott Co. 1892.

On reading the title page of this book, one would naturally expect to find a treatise on diseases of the peripheral nerves, spinal cord, and brain, but such is not the case. The author, in a series of lectures, discusses in a pleasing, painstaking way some pathological conditions of the meninges, and more thoroughly, perhaps, the various forms of insanity. In justice to the author, however, he promises in the preface to add another volume, in which will be discussed the diseases of the brain, cord, and nerves. It would have been well to have designated this as Volume I., either on the back or on the title page, so as to avoid misunderstanding.

The subject matter is presented in excellent form, and the references to American and foreign authors shows the author to have been a close student of neurology. In speaking of the abbreviated terms "dura" and "pia," the writer remarks, in a foot-note, that at a *recent* congress of European neurologists it was decided to drop the word mater, using only the words dura and pia. Perhaps the writer is not aware of Professor Wilder's efforts in behalf of a revised terminology; but the reviewer has listened many times to Professor Wilder's exhortation for shorter and more appropriate scientific terms. The author's views on insanity are extremely well described, particularly the chapters on Epileptic Insanity, which treat of the subject in a careful and forcible manner.

The author pays considerable attention to treatment, and herein he differs from most writers on neurology. Neurologists, as a rule, pay little attention to therapeutics, but limit themselves to the pathology and symptomatology of the disease in question.

On the whole, this book is worthy of careful reading by the specialist and general practitioner, but hardly can be recommended to students. The press-work is excellently done. W. C. K.

MEDICAL JOURNAL ADVERTISING. A Manual for Advertisers, edited by A. L. HUMMEL, M. D., Member of the American Medical Association, of the Association of Medical Editors, of the Mississippi Valley Medical Association, of the Philadelphia County Medical Society, and of the Alumni Association of the Medical Department, University of Maryland; formerly Business Manager of the *Medical Bulletin*, Publisher of the *Journal of Comparative Medicine and Surgery*, of the *University Medical Magazine*, and Managing Editor of the *Annals of Hygiene*. Published by Hummel & Parmele, Medical Journal Advertising Agents, 612 Drexel building, Philadelphia. 1892. 12mo., pp. 150. Price, $1.00.

Medical Journal Advertising is one of the most unique and handsome business books that has ever found its way to our table. It comes with the compliments of Hummel & Parmele, medical journal advertising agents, of Philadelphia, but the authorship of the book evidently abides with the editor, Dr. A. L. Hummel, whose exquisite taste and business skill is developed and accentuated throughout its pages. The first article, Medical Journal Advertising, by Dr. Hummel, furnishes most entertaining and delightful reading on a subject that we have heretofore considered uninteresting. Dr. Hummel infuses it with an interest that is surprising.

The several contributions to the pages, both from the medical and business sides of the subject, are also of a nature to bring interest and instruction to the reader. Dr. Love has discoursed happily upon the subject that he has chosen, namely, Medical Journal Advertising from the Standpoint of the Medical Journalist and the Busy Doctor; while Dr. Charles A. L. Reed has written two pages on Do Busy Doctors Read Medical Journal Advertisements? in which he answers the question in the affirmative in unmistakable language. Several of the well-known manufacturing chemists and pharmacists have also contributed short articles that go to make up an interesting whole.

In this book, also, we find a list of the medical journals of the United States, in which their circulation rating is given, obtained

from four different sources. This table will prove useful to anybody desiring to ascertain the precise status of a medical journal with reference to its circulation. A carefully selected group of advertisements are added to the book, in which several medical journals tell their story to the public. The book is bound in white vellum, and printed upon heavy book paper, in beautiful type, making it altogether a gem.

The Principles and Practice of Bandaging. By Gwilym G. Davis, M. D., Universities of Pennsylvania and Gottingen. Member of the Royal College of Surgeons, England; Assistant Demonstrator of Surgery, University of Pennsylvania; Surgeon of the Out-patient Departments of the Episcopal and Children's Hospital; Assistant Surgeon to the Orthopedic Hospital. Detroit, Mich.: George S. Davis. 1891. Price, $3.00.

The art of bandaging must always be studied in the clinic to be appreciated and understood. Nevertheless, it is necessary that experts should give us well-written books on the subject, that are also intelligently illustrated. Dr. Gwilym Davis has met all the important indications of the subject in his treatise, and has presented it without superfluous sentences or elongated phrases. It is a work unique in its design and original in many of its parts. The illustrations were drawn by the author, and several of the bandages are original with him. He has taken from other treatises their most valuable points, and these, grouped with his own original work, serve to make up a most attractive volume,—one that students and younger surgeons will not be slow to possess.

All Around the Year 1893. Entirely new design, in colors. By J. Pauline Sunter. Printed on heavy cardboard, gilt edges, with chain, tassels, and ring. Size, 4½ x 5½ inches. Boxed.

Mrs. Sunter's All Around the Year Calendar, for 1893, compares favorably with its predecessors, and is as graceful and pretty as anything she has done. The designs, done in several colors, are quaint and pretty. Sweet little lads and lassies issue forth, with just the right words, and combine to make a very charming love story. Seldom have we seen anything more pleasing than the twelve cards, each with its dainty design, which includes the calendar for the month. The designs are printed on cardboard, gilt edged, with rings, chain, cord, and tassels attached. Price, fifty cents. Lee & Shepard, publishers, Boston.

NAPHEY'S MODERN THERAPEUTICS. Medical and Surgical, including the Diseases of Women and Children. A Compendium of Recent Formula and Therapeutical Directions from the Practice of Eminent Contemporary Physicians, American and Foreign. Ninth edition, revised and enlarged. Vol. I. General Medicine and Diseases of Children, by ALLEN J. SMITH, M. D., Assistant Demonstrator of Morbid Anatomy and Pathological Histology, Lecturer on Urinology, etc., University of Pennsylvania, and J. Aubrey Davis, Assistant Demonstrator of Obstetrics, etc., University of Pennsylvania. Octavo, pp. xx.—1034. Philadelphia: P. Blakiston, Son & Company. Buffalo: Peter Paul & Brother.

The modest unpretending first edition of Naphey's Therapeutics, that appeared in 1871, is something in contrast to this formidable octavo volume of 1034 pages, bound in half-Russia and muslin with mottled edges. If a physician desires to obtain a concise statement of a special line of treatment, applicable to a particular disease, he will find it arranged in this book most admirably for reference, as well as satisfactory in its reading. It is rarely that one turns to any subject here considered without obtaining some useful hint in relation to it. The classification by anatomical systems is adhered to in the first part, beginning with the respiratory system and ending with toxic diseases. The second part considers the therapeutics of diseases of children, in which fevers and miasmatic diseases come first, then diseases of the respiratory tract, and, lastly, diseases of the alimentary tract. The type and paper are excellent, and this ninth edition has been carefully edited and systematically arranged. Unfortunately, it is sold by subscription only, hence cannot be obtained except through the publishers.

TRANSACTIONS OF THE ASSOCIATION OF AMERICAN PHYSICIANS. Seventh session, held at Washington, D. C., May 24, 25, and 26, 1892. Vol. VII. Philadelphia: Printed for the Association. 1892.

The seventh volume of the Transactions of this Association comprises the papers read at its annual meeting, held in Washington, in May, 1892. Dr. Victor C. Vaughan, in a paper of forty pages, gives an interesting bacteriological study of drinking water, that should be read by health officers of cities and towns, as well as others interested in the subject. There are many other important papers in the book, but one of the most practical for the general practitioner is that by Dr. Charles G. Stockton, entitled Misconceptions and Misnomers Revealed by Modern Gastric Research. This subject is one of great importance, hence we invite special attention to this excellent paper.

Diseases of the Nervous System. By J. A. Ormerod, M. D., Oxon. F. R. C. P., London. Medical Registrar and Demonstrator of Morbid Anatomy at St. Bartholomew's Hospital; Physician to the National Hospital for the Paralyzed and Epileptic, Queen's Square, and to the City of London Hospital for Diseases of the Chest, Victoria Park. With numerous illustrations. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1892. Pp. 243; cloth, 8vo.

This is eminently a student's book, and is written evidently with the object of rendering the subject less appalling. He has done this by describing typical cases, and has not burdened the reader with too many variations from the typical forms. As the writer does not claim that the book is at all complete, or that it is anything more than an introduction to the larger and more complete treatises on the subject, it is not proper to criticise him for its incompleteness. We do believe, however, that it would have been better to be more definite in his etiology. For instance, he says of ant. polio-myelitis, its causes are practically unknown. He evidently ignores the fact that the disease presents a remarkable relation to season, as Sinkler showed that four-fifths of the cases commenced in the five hot months from May to September, and that Gowers showed that three-fourths of his seventy-one cases occurred from June to September. He omits all mention of the fact that exposure to cold has been, at times, an undoubted cause. Traumatism has also caused the disease. In his discussion of the treatment of this disease, he makes no mention of the treatment of the febrile stage, and in his treatment of the latter stage he does not mention strychnia. We believe that in his effort to be brief and simple in his style, he has omitted too much. What he has said he has said well and clearly, but not enough. J. W. P.

Transactions of the Thirteenth Annual Meeting of the American Laryngological Association, held in the City of Washington, D. C., September 22, 23, and 24, 1891. New York: D. Appleton & Company. 1892.

This volume is a report of the work of this famous Association for the year 1891. It is full of valuable literature by a number of the most eminent specialists in the department of laryngological medicine. Several of the papers have already appeared in the New York *Medical Journal*, but all interested physicians will find it needful to obtain the volume, in order to keep pace with the details of the work of the Association, many of which can be obtained in no other way.

PTOMAINES, LEUCOMAINES AND BACTERIAL PROTEIDS, or the Chemical Factors in the Causation of Disease. By VICTOR C. VAUGHAN, Ph. D., M. D., Professor of Hygiene and Physiological Chemistry in the University of Michigan, and Director of the Hygienic Laboratory; and Frederick G. Novy, Sc., D., M. D., Assistant Professor of Hygiene and Physiological Chemistry in the University Michigan. Second edition, revised and enlarged; 12mo, pp. 391. Philadelphia: Lea Brothers & Co. 1891. Price, cloth, $2.25.

The demand for a second edition of this work, in a short space of time, is a beautiful compliment to the authors that their work has been so thoroughly appreciated, and has supplied the physician and scientist with a much needed volume. Prior to the appearance of the first edition of the book, the worker in the field of ptomaines and leucomaines was obliged to con page after page of journals, in order to secure an idea or a synopsis of the subject. The authors have given to the medical fraternity a volume for which they are truly grateful, and without a study of which they cannot be abreast of the times in the science of medicine.

It is a volume which should be in the library of every physician; a volume which should be carefully read and studied by every medical student and practitioner who desires to be in the vanguard of his profession.

The typography is excellent, and the binding is neat and tasteful. J. A. M.

THE DIAGNOSIS OF DISEASES OF THE NERVOUS SYSTEM. A Manual for Students and Practitioners, by CHRISTIAN HERTER, M. D., Physician to the Class of Nervous Diseases, Presbyterian Hospital Dispensary. Pp. 628, 12mo, cloth. G. P. Putnam's Sons. New York and London: The Knickerbocker Press. 1892.

There is much to be said in favor of this book, for it is unusually clear and direct in style. It is fully abreast of modern thought and of the recently conducted experiments. The arrangement of the book is unusual. Instead of treating of diseases in rotation, he has adopted the plan of describing, first, methods of locating the seat of the lesion, beginning with the anterior portion of the brain and proceeding regularly to consider the symptoms which indicate lesions of the different cerebral areas. The cerebellum, Pons, medulla, and spinal cord are similarly considered. After a most admirable consideration of one means of locating, he then considers the method of diagnosticating the nature of the lesion. After this, the study of clinical types of disease is taken up. The

chapter on The Differential Diagnosis of Functional and Organic Disease is one of the best in the book.

We do not hesitate in saying that it is one of the best books we have seen. It shows that it is the product of a well-ordered mind. J. W. P.

Leonard's Physicians' Pocket Day-Book. Bound in red morocco, with flap, pocket, pencil, loop, and red edges. Price, postpaid, $1.00. Published by *The Illustrated Medical Journal Co.*, Detroit, Mich.

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The various formulæ contained in this volume are practical prescriptions of new and old remedies, for the various types of diseases that affect mankind. They are the favorite ones, of the various authorities, for the diseases indicated. The index is full and complete, thus rendering the whole book easy of access. The volume is copiously interleaved, so that on the blank pages can be recorded, by pasting or copying with pen or pencil, any other prescription suitable for any disease that is on the opposite page of the book; the complete index thus indexes each new formulæ one may see fit to copy into the pages of the volume. The whole is comprised in a handy cloth-bound volume of nearly 300 pages, and will be mailed to any address, upon receipt of its price, by the publishers.

PRACTICAL AND ANALYTICAL CHEMISTRY. A Complete Course in Chemical Analysis. By HENRY TRIMBLE, PH. M., Professor of Analytical Chemistry in Philadelphia College of Pharmacy. Fourth edition, with illustrations; pp. 191. Philadelphia: P. Blakiston, Son & Co. 1892.

The publication of four editions of a work on qualitative analysis within seven years is not of common occurence, and speaks well the value of such a book. The author has given us an excellent little work upon practical and analytical chemistry, and we have only words of praise for the painstaking care exhibited throughout the volume by both the author and the publishers. J. A. M.

BOOKS RECEIVED.

International Clinics: A Quarterly of Clinical Lectures on Medicine, Surgery, Gynecology, Pediatrics, Neurology, Dermatology, Laryngology, Ophthalmology, and Otology. By professors and lecturers in the leading medical colleges of the United States, Great Britain, and Canada. Edited by John M. Keating, M. D., Philadelphia, Consulting Physician for Diseases of Women to St. Agnes' Hospital, Philadelphia; editor "Cyclopedia of the Diseases of Children." J. P. Crozer Griffith, M. D., Philadelphia, Clinical Professor of Diseases of Children in the University of Pennsylvania; Professor of Clinical Medicine in the Philadelphia Polyclinic. J. Mitchell Bruce, M. D., F. R. C. P., London, England, Physician and Lecturer on Therapeutics at the Charing Cross Hospital. David W. Finlay, M. D., F. R. C. P., Aberdeen, Scotland, Professor of the Practice of Medicine in the University of Aberdeen; Physician to and Lecturer on Clinical Medicine in the Aberdeen Royal Infirmary; Consulting Physician to the Royal Hospital for Diseases of the Chest, London. January, 1892. Philadelphia: J. B. Lippincott Company. 1892.

Anatomy. A Manual for Students and Practitioners. By Fred J. Brockway, M. D., Assistant Demonstrator of Anatomy, College of Physicians and Surgeons, New York, and A. O'Malley, M. D., Instructor in Surgery, New York Polyclinic. Series edited by Bern B. Gallaudet, M. D., Demonstrator of Anatomy, College of Physicians and Surgeons, New York; Visiting Surgeon, Bellevue Hospital, New York. Philadelphia: Lea Brothers & Co.

Accidents and Emergencies. A Manual of the Treatment of Surgical and Medical Emergencies in the Absence of a Physician. By Charles W. Dulles, M. D., Fellow of the College of Physicians, Philadelphia, and of the Academy of Surgery; Physician of the Rush Hospital; formerly Surgeon to the Out-door Department of the Hospital of the University of Pennsylvania, and of the Presbyterian Hospital, in Philadelphia, and Assistant Surgeon, Second Regiment, N. G., Pa. Fourth edition, thoroughly revised and enlarged, with new illustrations. Philadelphia: P. Blakiston, Son & Co., No. 1012 Walnut Street. 1892.

A Pocket Medical Dictionary, giving the Pronunciation and Definition of about 12,000 of the Principal Words used in Medicine and the Collateral Sciences. By George M. Gould, A. M., M. D., Author of a

New Medical Dictionary; Ophthalmic Surgeon to the Philadelphia Hospital. Including a very complete table of the Arteries, Muscles, Nerves, Bacteria, Bacilli, Micrococci, Spirilli, and Thermometric Scales, and dose list of drugs and their preparations, in both the English and metric systems of weights and measures. Philadelphia: P. Blakiston, Son & Co. 1892.

Diseases of the Kidneys and Bladder. A Text-book for Students of Medicine. By W. F. McNutt, M. D., M. R. C. S., Ed., L. R. C. P., Ed., Professor of the Principles of Practice of Medicine, University of California; Professor of the Diseases of the Kidneys and Heart, Post-Graduate Department of the University of California; Consulting Physician and Surgeon to St. Mary's Hospital, and to the Children's Hospital; Member of the International Medical Congress, of the American Medical Association, and of the California State Medical Society; President of the California Gynecological Society; Ex-Acting Assistant Surgeon United States Navy, etc. Philadelphia: J. B. Lippincott Co. 1893.

Manual of Practical Medical and Physiological Chemistry. By Charles E. Pellew, E. M., Demonstrator of Physics and Chemistry in the College of Physicians and Surgeons, (Medical Department of Columbia College,) New York. Honorary Assistant in Chemistry at the School of Mines, Columbia College, etc. With illustrations. New York: D. Appleton & Co. 1892.

A Manual of the Practice of Medicine, prepared especially for Students. By A. A. Stevens, A. M., M. D., Instructor of Physical Diagnosis in the University of Pennsylvania, and Demonstrator of Pathology in the Woman's Medical College, Philadelphia. Illustrated. Philadelphia: W. B. Saunders, 913 Walnut Street, Philadelphia. 1893.

Fissure of the Anus and Fistula in Ano. By Lewis H. Adler, Jr., M. D., Instructor in Diseases of the Rectum in the Philadelphia Polyclinic and College for Graduates in Medicine. Physicians' Leisure Library. Price, 25 cents. George S. Davis. Detroit, Mich. 1892.

International Pocket Visiting List. Sixty patients each week. 1893. Arranged for the use of practitioners. By J. C. Wilson, M. D., Physician to the German Hospital, etc., etc. Philadelphia: J. B. Lippincott Company.

Histology, Pathology, and Bacteriology. A Manual for Students and Practitioners. By Benett S. Beach, M. D., Lecturer on Histology, Pathology, and Bacteriology, New York Polyclinic. Series edited by Bern B. Gallaudet, M. D., Demonstrator of Anatomy, College of Physicians and Surgeons, New York; Visiting Surgeon, Bellevue Hospital, New York. Philadelphia: Lea Brothers & Co.

Transactions of the Washington Obstetrical and Gynecological Society. Volume III. June 7, 1889, to May 16, 1890. Founded October 7, 1882.

Notice to Contributors.—We are glad to receive contributions from every one who knows anything of interest to the profession. Articles designed for publication in the Journal should be handed in before the first day of the month. The Editors are not responsible for the views or opinions of contributors. All communications should be addressed to the Managing Editor, 284 Franklin St., Buffalo, N. Y.

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Original Communications.

ACTINOMYCOSIS, WITH REPORT OF A CASE.[1]

By ROSWELL PARK, A. M., M. D., Buffalo, N. Y.

Under one name or another, the peculiar manifestations now known to be the result of the condition termed actinomycosis, have been recognized in nearly all civilized countries, and have been noticed especially about the head and neck of domestic animals, particularly cattle. The large variety of names given to these lesions constitutes the best indication of the fact that their etiology was unknown. During the past thirty or forty years they have been more and more carefully studied by veterinarians. In England, for instance, as early as 1833, a peculiar swelling met with in cattle, and known locally as *clyers*, had been somewhat carefully studied by Professor Dick. He dissected several animals which presented these tumors in the parts about the throat, and described them as having a somewhat malignant character, and corresponding to what were usually called "medullary carcinomatous tumors." He noticed, also, that sometimes abscesses developed, and that when these were laid open healing frequently followed, and that in other cases the open sores remained indolent for a time, and then increased until they interrupted respiration by their bulk, and prevented deglutition. In 1841, he made a further report on the same subject, describing now the mouth and throat of a cow in which there was a distinctive tumor, and he spoke of it as a mass of fungus flesh, while a part of the jaw was decayed and absorbed. This time he stated that the disease was not unknown in cattle, and that it was well known as attacking the jaws in human beings; that by surgeons it was demonstrated osteo-sarcoma of the maxillary bones, and he added that the remote cause seemed to be a scrofulous diathesis, while the existing cause was commonly dis-

1. Read at the Stated Meeting of the Buffalo Academy of Medicine, December 6, 1892.

ease of the molar teeth, or some accidental injury. In 1843, a Mr. Relph contributed to *The Veterinarian*, a "kind of indurated tumor," which he met with in his practice oftener than anything except the common wens. He spoke also of its ulceration and extension, until at length animals sank and died of "atrophy or phthisis pulmonarius." He spoke also of a section of one of these tumors as "mostly displaying several abscesses with matter varying in consistency, and often very fetid, enclosed in what seemed to be fibro-cartilaginous cysts." Also, again, of the implication of the nasal sinuses and involvement of the orbital cavity, where bone was being removed and matter deposited, and also that the tongue was much enlarged and ulcerated. In 1845, Professor Simmonds spoke of the diseased condition as an affection termed *scirrhus tongue*, and one frequently found associated with maladies essentially different. Under this term, scirrhus tongue, it was commonly described until quite recently. In 1864, a case was fully described in the *Ed. Vet. Rev.*, under the title of Cancer of the Tongue in an Ox. On the continent, also, this disease had been everywhere misunderstood. It had been frequently regarded as a tubercular infection or mistaken for a simple chronic glossitis; while the continental languages were full of common names for it, and veterinarians spoke of it as osteo-sarcoma, bone cancer, spina ventosa, etc. In 1876, Bollinger presented to the Society for Morphology and Philosophy, at Munich, a learned paper on the subject, with a demonstration of microscopical and gross specimens. He pointed out that these tumors consisted of several centers of growth, bound together by connective tissue, whose cut surfaces presented yellowish white suppurative foci, or at times a spongy texture, owing to the formation of minute cavities in a fibrinous crust, which contained a thick, yellow, caseous pulp. The microscope revealed a structure something like that of sarcoma, while the expressed juice contained, among other materials, small granular bodies which had a mulberry-like appearance, and were sometimes encrusted with chalky matter. He had discovered that these latter bodies were true fungi, and he further maintained from the constancy of their appearance that they were not accidental but had a pathological significance. These also he had met with in old museum specimens.

Bollinger had observed this remarkable formation not only in the upper and lower jaws, but also in the tongue, in which latter organ, when recent, it much resembled the condition produced by

tuberculosis. If these nodules were situated on the surface of the tongue, they rapidly led to the formation of ulcers. It was possible, also, for an interstitial glossitis to occur, which, in spite of partial atrophy of muscle fibers, led to enlargement and peculiar hardness of the tongue, from which the infection gained, in German, its popular name, *holz-zunge*, or wooden-tongue. On continuing his researches further, he discovered the same fungus in tumors which occurred in the pharynx, larynx, and stomach. He even described this fungus in a case of so-called fibroid of the second stomach of a cow, and in a form of apparent tubercular ulceration of the intestines. He submitted the fungus to the botanist Harz, who described it and assigned it to a temporary position. Cultivation experiments and inoculation of the tongue of a calf with liquid containing the organism, all failed. Its name was given by Harz. Bollinger's paper was published in 1877, and attracted widespread attention, and brought out the claim from Perroncito and Rivolta that they had already discovered the same organism in 1863 and 1868 respectively. It is very probable that Hahn, of Munich, met with the fungus in 1870, since he states that in a case of wooden-tongue he found characteristic structures, which he described provisionally as a species of mould fungus, but Bollinger was certainly the first to study the organism systematically, and to throw an entirely new light upon the pathology of the infection, and his researches were corroborated by Siedamgrotzky, by Johne and Ponfick; and so by one observer and another on the continent, and later in Great Britain, the pathological identity of the various lesions included under so many different names was established, and the names of Boström and Israel, of Axe and Crookshank, and of many others in addition to those already named, have become inseparable from the subject itself. During the year 1888, a most important memoir was sent to the Agricultural Department of the Privy Council by Professor Crookshank, of King's College, which was published in the annual report of that department for that year. It is a most elaborate document, extensively illustrated, and prepared with the greatest care, and to it the writer is largely indebted. One of the things for which we are especially indebted to Professor Crookshank in this matter, is the establishment of the fact that many of the lesions in animals which had before been considered due to tuberculosis, were in reality manifestations of actinomycotic disease, a beautiful proof of which that gentleman has kindly afforded me in his own laboratory, while in the document

referred to it is amply evidenced by illustration. Altogether we regard this report pertaining to animals and men as well, and comprising eighty pages, as presenting, perhaps, the best summary of the subject which we have.

The disease, as Crookshank and others succinctly state, belongs to the class of infective granulomata. It produces an irritative, inflammatory action, by the presence of a special irritant, a microphyte, and consists of a collection of round, epitheloid, lymphoid, and giant cells, enclosed within a fibrous reticulum. There are thus constituted nodular tumors of various sizes. Sometimes these attain large dimensions, at other times they break down early and suppurate. While it appears, as seen in a former lecture, that the actinomycotic fungus may, by itself, produce pus, it is, nevertheless, equally true that suppuration in actinomycotic tumors is commonly due to a secondary infection by the ordinary pyogenic organisms. Calcification takes place sometimes in the fungus tufts, and altogether the actinomycotic nodule so closely resembles the tubercular in its minute character that it constitutes almost a mimicry of the latter. Its most characteristic manifestation in cattle is betokened by the popular name most frequently given to it, namely, *lumpy jaw*. It is especially prevalent in river valleys and marshes, and on land reclaimed from the sea, and in animals appears to occur more frequently in the winter, and more often in the young than in the old. There is strong reason for believing that the fungus gains access to the system through wounds or ulceration of the mucous membrane, or through carious tissue. It has been pointed out that the common occurrence of the disease at the time of second dentition may be due to the wounds produced during the shedding of the teeth. It is supposed, also, that thistles and frozen roots, by wounding the parts, may afford a path of entrance. Discharges from infected animals are thus infectious, and cow sheds and pastures, drinking troughs and fodder may be easily infected.

The fungus itself may be detected with the naked eye in the discharge of an actinomycotic ulcer, or in the scraping from a cut surface or growth. Its tufts vary in size from that of a grain of sand to that of a pin's head. If the material contained be spread out on a slide and examined against a dark back-ground, these granules appear white or yellow-white in color, but if examined in transmitted light they appear distinctly brownish. If they are pressed down with a cover-glass, they readily flatten out, while

possibly a distinct gritty sensation is transmitted to the finger, owing to the presence of calcareous matter. With a low power the fungus will be recognized in the form of irregular patches scattered over the field, which might at first be mistaken for granular *débris*, but which on more exact examination will be observed to have a characteristic appearance. With a higher power masses will be seen which look like a rosette of clubs, or which have here and there throughout the margin a club-shaped projection. Of course, with these bodies, pus cells and other granules will be found. By pressing upon the cover, the rosette is broken up and then the club forms are recognized singly or in twos, or in the shape of fan-shaped segments. The presence of calcium salts may be readily demonstrated by the acids which dissolve them; by which the clubs are not affected. The club-shaped masses are not affected by ether, nor by potassium hydrate, which shows that they are not fat crystals. By teasing the little cluster we may break it up into its club-like elements, and these may be examined with still higher powers. When these grains are placed in water and teased out, the center portion seems to be composed of a structureless core. When the organism is removed from the disease in man, it appears to present minute and delicate filaments which are not present in those removed from animals.

Actinomyces were generally regarded as belonging to the higher micro-fungi until Boström put forward a new theory. By Harz and Johne the club-shaped prolongations were considered to be conidia and the threads to be hyphæ. Boström, on the other hand, thought that the clubs should not be regarded as conidia, but the result of a pathological stage of the threads, and he considered that the calcification which occurs in them supports his view. If this were the case, cultivations could not be successfully made from the clubs, but must be made from fungi containing threads. He made cultures from five animal cases and one human, and obtained a similar result from all. The fungi were isolated from pus with sterilized needles, were placed in liquified gelatine ; in which they were teased out, and the gelatine then spread on glass plates. In a few days the growth became visible. The fungi were then isolated from the plates, crushed between sterilized glass slides, and planted on the surface of nutrient agar and blood serum. In this way pure cultivations were obtained, and the culture, which I show you herewith, is made from a descendant of one of his original cultures. It grows in a peculiar way, with a finely granular whitish appearance,

after a few days small yellowish-red spots appear in the center, increase in size for a week or so, and then become confluent, while the margin is also dotted with similar spots. Isolated colonies, as they appear, have a yellowish-red center, with a grayish margin. Boström states that the actinomycis is not one of the mould fungi, and its central threads do not constitute a mycelium. He was inclined to regard it as a branched cladothrix.

Johne and Ponfick made a careful series of experiments to prove that actinomycosis is transmissible from animal to animal. Inoculation experiments, whether subcutaneous or intraperitoneal, as well as intra-veinous injection, were successful. Feeding experiments gave negative results. It appears from their researches that rabbits and dogs possess a marked immunity, while the cow is, perhaps, the most susceptible of all animals.

We are, naturally, most interested in this disease as it appears in man. In 1878, Israël published the drawings made in 1845 by Langenbeck, then in Kiel, of a case of vertebral caries, in the pus from which peculiar bodies were observed. There can be but little doubt that these structures were the fungi of actinomycosis. But the first published observations will be found in Lebert's large work on pathological anatomy, described in the text and figured in the atlas. In 1848, Lebert received some pus of great consistency which had been obtained from an abscess in the thoracic wall of an elderly man. The patient had been thought to have a cancerous pulmonary affection. The pus contained a very considerable quantity of minute spherical beads, which could be crushed between two strips of glass, and in which, under a low power, radiating wedge-shape bodies were found. Lebert tested these bodies most carefully with chemical reagents, and had in mind the possible existence of some helminthic *débris* of which these bodies might be hooklets, but he sought in vain for the common parasites. Actinomycotic pus was later described and figured by Robin, but the first adequate description of the disease in man was made by Israel, who was soon followed by Ponfick. By these two writers the various cases which had been observed up to that date were collected and described and the disease classified according to the seat of invasion. Up to the time of Crookshank's report he had collected about one hundred and thirty human cases, and from those, as well as from the work of Israel, the following description is largely drawn:

Invasion by the mouth and pharynx.—The fungus may gain

access through carious teeth or wounds or fistulæ of the jaw, and possibly by the pharynx and tonsils; it attacks the lower jaw most frequently. The consequent tumor is found in close connection with the bone, and just beneath the jaw or in front of the trachea. Actinomycotic tumors in this region appear to correspond very closely with the *clyers*, already described in cattle. As in cattle, they may discharge through the skin, although they differ in their tendency to form burrowing abscesses instead of recognizable tumors. The upper jaw is much less frequently attacked than the lower. The progress of the disease is usually slow, and there is a tendency to the deep-seated parts becoming involved; while, when the lower jaw is attacked, the tumors tend to approach the surface. In other cases the disease has been described as extending from the aveolar process to the temporal bone, or the base of the skull, destroying these bones and even reaching the brain. In yet other cases, it has extended along the spinal column, implicating the vertebræ and traveling and pointing in various directions. The first cases of actinomycosis hominis which were observed in this country, were connected with the jaw, and were described by Dr. Murphy, of Chicago. Both recovered after thorough curetting. In one recorded case the disease existed for seven years, was localized in the bronchi (bronchitis actinomycotica), and did not extend into the lungs. The sputum was examined and contained the characteristic fungus. If the fungi be inhaled, they pass into the lungs and produce proliferation of round cells, which undergo fatty degeneration. The resulting patches of peri-bronchitis, or pneumonia, become yellowish white. Suppuration and hemorrhage follow and the resulting small cavities contain pus cells, fat granules, blood and fungi; ultimately a dense layer of connective tissue is formed around the cavities, which are lined with granulation tissue containing the characteristic fungus. The symptoms are usually obscure, but the specific organism may be found in the sputum, and is, in fact, often recognizable with the naked eye. The apices of the lungs are not, as a rule, affected. There is considerable resemblance in clinical course to chronic or fibroid phthisis. In the second stage the symptoms are more severe. The disease spreads to neighboring parts and often pleurisy supervenes. The disease has been known to descend behind the diaphragm and point as a psoas or lumbar abscess; or to perforate the diaphragm, reach the abdominal cavity, and there set up peritonitis or subphrenic abscess. The disease may also extend forward in the direc-

tion of the pericardium and anterior mediastinum. In the third stage the disease comes to the surface, either over the chest or in the neighborhood of the vertebræ ; a livid swelling appears, from which no fluid escapes on puncture, but which works its way to the surface, and then discharges the muco-purulent fluid, in which the fungi are easily recognized.

Invasion by the digestive tract.—Chiari has published a case dying from general marasmus, after two years' illness, at the age of thirty-four. The mucous membrane of the intestines was completely covered with whitish patches closely adherent to the adjacent tissues. In this case the teeth were carious. In such cases, generally, small nodules about the size of a pea may be found in the sub-mucous tissue and in the mucosa itself, they soften and form ulcers with determined edges, their bases reaching the deepest layer. These may undergo cicatrization, but, generally, ulceration extends through the peritoneum to the abdominal cavity, and we have perforation of the bladder or the intestines, or perhaps of the abdominal wall. Symptoms are absent or not characteristic. The fungus may be found in the evacuations, or by exploratory puncture.

Besides such cases as the above, which can be easily classified, there are a number of recorded cases presenting varied symptoms and anatomical relations in which the path of infection has not been determined. It may be said in common of all cases, however, that no matter where the lesions may be situated, the discharges therefrom present always typical characteristics.

The first case of actinomycosis in man met with in Great Britain was described by Dr. Harley in 1885, the patient being an inmate of St. Thomas' Hospital. The next two cases were recognized by Mr. Shattock, who published them in the Pathological Transactions in 1884 and 1885. Numerous other cases are described in English journals, and it is a matter of interest to know that numerous specimens which had long been deposited in museums, that of the College of Surgeons, for instance, and had been described under other names, were found to be genuine cases of actinomycosis. It is worth while, also, to know that since the introduction of Gram's method of staining, a distinctive advance in the recognition of the organism has been made, since by this method, combined with staining by orange rubin, as pointed out by Crookshank, the threads are stained blue and the clubs crimson, while in the younger clubs the protoplasm of the thread can be traced into the interior of the club. Evidently, then, the best method of prep-

aration is Gram's stain, followed by eosin or orange rubin. Inasmuch as Gram's method has not been applied by either Israel or Koch in the earlier part of their studies of this disease, it is not strange that most of their writings have failed in the complete description of the organism which the later reporters have given.

So far as the source of the disease in man is known, many interesting observations have been made. Two cases have been recorded in support of a theory of direct infection from the cow. One of these occurred in a man who had the care of animals, some of which were diseased, the other in a man who had the charge of cows, one of which had a tumor of the jaw, which tumor he had opened. On the other hand, Moosbrugger found that out of seventy-five cases, fifty-four were in men, nineteen in women, and two in young girls. In eleven of these the occupation was not stated; in thirty-three their occupations did not bring them into contact with diseased animals. Only ten of his cases occurred among farmers, peasants, and farm laborers, and only one of these ten had been brought into contact with diseased animals. Of the twenty-one women there were only four peasants, and none of them had been taking care of diseased animals. Infection by the flesh of diseased animals has also been discussed, but there is no evidence of prevalence of the disease among butchers, who would be particularly liable to it if flesh were a source of infection. Moreover, the chances of infection from this source are minimized by the flesh being almost always cooked. To be sure, the disease occurs also in pigs, and pork is often eaten in an uncooked state; and Israel has pointed out that the disease has never been known to occur among strict Jews. Evidence seems to point to the origin of the disease among the cereal foods. This view is supported by observations with reference to the part played by cereals in inducing the disease in cattle, an origin well known, and it gains additional support from a case described by Soltman where the disease resulted from swallowing an awn of barley. This was accidentally swallowed by a boy of eleven, who became very ill and suffered great pain behind the sternum, extending to the back. An abscess formed, covering an area extending over this inter-costal space, and when opened the awn of barley was found in the evacuated pus, but pain continued and fresh deposits occurred, and when the boy was taken to the hospital, the specific fungus was detected.

As Crookshank states, it has not been possible to trace every

step in the life history of many of the basidiomycetes; but if we regard the ray fungus in the light of what is known to occur in many species, this life history may be explained about as he explains it, thus: The spores sprout into hyphæ, and these form fine threads which branch irregularly and sometimes dichotomously; the extremities of the branches develop the club-shaped bodies; these are so closely packed together that a more or less globular body is formed with a central core, composed of a dense mycelium. By Gram's method, these threads can be differentiated into an external sheath with protoplasmic contents. The club-shaped body appears to be externally mucilaginous, while internally it is continuous with the protoplasm of the thread. In all probability the clubs represent organisms of fructification. If this be correct, the protoplasm in the interior of the club may possibly undergo changes leading to spore formation, the spores being ultimately set free. At other times, the clubs themselves seem to sprout, and the sprouting forms to suggest teleuto spores. In whatever way formed, there is but little doubt that spores are set free in the vicinity of a rosette, and give rise to fresh individuals, and that spores and young fungi are taken up by wandering cells, by which they are conveyed to a distance where they reproduce their kind.

At the Congress of German Surgeons in 1890, Israel and Wolff made an important communication on ray fungi, and their successful cultivation outside of the animal organism, and their successful implantation of such cultures upon the animal. In this a claim was made that they were the first to succeed in cultivating the actinomycosis and implanting it, which claim would appear to be unjustifiable, since, so far as I can learn, Boström anticipated them in this work by several years. Still, their remarks and their demonstrations were most entertaining, and the question of priority is one of minor importance. That they did succeed is established, and the fact that it is impossible to produce an artificial actinomycotic disease in animals is established beyond a doubt.

The cultures which I show you here were made from some furnished me by Dr. Karg, of Leipsic, who received his directly from Boström.

At the Congress of German Surgeons, held in Berlin, (*Prager medicinische Wochenschrift*, July 27, 1892,) Schlange reported observations of 130 cases of actinomycosis. Over one-half of these

were traced since 1886, and their history warrants a more favorable prognosis than has hitherto been attached to the disease.

In eighty of these cases, the process was limited to the head and neck; forty have been cured for over two years. One case, in which the disease progressed along the base of the skull, died in six months from the inception, in consequence of meningitis. Another of these cases, which developed downwards, is still alive, thirteen years after beginning of the affection.

Regarding treatment, the author calls attention to the fact that extensive extirpations have been abandoned. Surgeons now content themselves with small incisions, scooping, etc., because actinomycosis tends to spontaneous recovery. He adds that it is barely credible how widespread an actinomycosis may recover without treatment of any kind. Even actinomycosis of the lungs is amenable to healing, except when the thoracic parietes are much perforated by the ray fungus. Even actinomycosis involving the abdominal organs is not excluded from possible recovery. When it affects the intestines, the prognosis is bad; but when located in the abdominal walls the prognosis is more favorable.

Billroth's suggestion to treat actinomycosis with Koch's tuberculine, has not proven efficacious.

Garré agrees that actinomycosis admits of a more favorable prognosis than has been given it. Cases which appeared hopeless recovered in five to six years. Of the twenty cases he observed, but two terminated fatally. He thinks that most cases of actinomycosis are dependent upon a mixed infection. He further believes that the anerobic fungi die on exposure to the air.

v. Eiselsberg, at the same Congress, mentioned a case of extensive actinomycosis of the abdominal parietes, which was cured in one year by ten injections of Koch's lymph. He described another case, in Kahler's Clinic, in Vienna, now being treated with Kochin, which is approaching recovery.

The first case of actinomycosis of the liver observed in this country occurred in the practice of Kneer, of New York, 1879. He made a number of most perfect microscopic slides of the specimen, which he presented to many investigators.

C. K., aged about thirty, was seen by me with Dr. F., June 18, 1892. I was told that he had enlargement of the liver, with a peculiar abscess, discharging externally, and that there was suspicion of malignant growth.

With great difficulty I secured even the following meager history:

Some two and a half years ago he spent a winter at the stock yards, clerking and assisting in office work in the main, although still coming in contact with cattle. At that time he was strong and robust ; since that time he has never been well. He told me, in answer to questions, that he had seen two or three cases of lumpy-jaw in cattle. I learned that during that season he began to cough, and that from that time he has been more or less troubled with a constant cough. Some months later he began to complain of vague and indefinite pains on the right side. After ceasing to work at the stock-yards he became a clerk in the City Hall, but for the past year has coughed and raised more or less. At one time he was quite an athlete, but his companions noticed, during the Summer of 1891, that he was not as strong, and that he seemed greatly exhausted after even comparatively violent exercise. During the past Winter, he became paler and somewhat emaciated. He went to Dr. B. and showed him a lump in the right side, apparently involving the ribs over the liver, and in the axillary line. For some reason, Dr. B. told him that he had broken one or more ribs, although there was no history of violence. I suppose he regarded the lump, of which the patient complained, as callus. Some time after this, and about four months ago, he first went to Dr. F., who detected pseudo-fluctuation in this mass, and made an incision. A quantity of material was discharged, which did not look like ordinary pus, but seemed a sort of *débris*. About this time, the young man took to the house, and later to the bed, complaining of constantly increasing pain and soreness in the region of the liver and lower part of the right lung. At various times different spots in the area above alluded to would soften apparently as when suppurating, acting much like small abscesses, and would be incised, discharging material of the same character as before. In different directions, a probe would pass to a depth of from two to four inches. He was in this general condition, growing steadily worse, when I first saw him. At this time, he moved in bed with difficulty, was very pale and emaciated, pulse weak, sweating easily, and looked much like one in an advanced stage of consumption. On the right side, over the lower ribs, was a brawny, livid swelling, with several sinuses, into which the probe passed to different depths. The patient was coughing frequently, and raising sputum, much like that of consumption. The doctor had just incised one of the little areas, and in the sanguineous fluid, which still escaped, were little yellow particles, like minute particles of cheese. There was an extensive area of dulness, the liver seeming much enlarged, and either it was enlarged upward or the lower portion of the lung was consolidated; still dulness, upon percussion, extended almost up to the line of the nipples. Specimens of the sputum and of the discharge were secured for microscopical examination.

At that time, I made a differential diagnosis of actinomycosis,

for these reasons: The general appearance indicated either malignant disease or one of the infectious granulomata. The former I could exclude, I thought, because of the long history of the case, the absence of jaundice and of ascites, also on the ground of the family history and the age of the patient. It seemed to me clearly to belong among the infectious granulomata. There was no history nor any evidence of syphilis. The trouble seemed to me too extensive and locally comprehensive for manifestation of tuberculosis, and I was practically narrowed down by exclusion to the question of actinomycosis. There was nothing in the history nor the general appearance of the patient to preclude this, while the characteristic minute yellow particles in the discharge from one incision made me feel quite positive.

On returning and placing the specimens under the microscope, the diagnosis was at once confirmed. The sputum contained no tubercule bacilli, but an enormous number of actinomycotic fungi, while the same were in the discharge from the sinus. The patient was in bad, general condition; but holding that if his life were to be saved at all, it could only be by extreme measures, I suggested operation as the only possible measure for relief. This was made June 25th, by Dr. F., Dr. H. U. Williams and myself being present by his courtesy. It consisted of a resection of the three ribs in the center of the mass most involved. It was apparent then that an enormous thickening of the overlying tissues outside of the bony wall had occurred, and that much of the enlargement which we had credited to his liver was really due to this thickening, we having been deceived partly because of his extreme tenderness in this region. A large portion of sloughing and infectious tissue was cut away, along with the ribs, and the sharp spoon was used very freely, but there seemed to be no limit to the infected mass, and impending collapse suggested the termination of the operation long before desirable limits had been reached. The patient died, the same day, of shock.

In all the tissue removed, as well as in such fluid as could be expressed from the same, and from the bone marrow of the excised portion of rib, myriads of fungi were detected, while culture experiments gave impure cultures of actinomycotic fungi, the same being mixed with the ordinary pyogenic organisms. I am indebted to Dr. Williams for much of the microscopical examination of the specimens from this case.

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OPERATIONS ON THE KIDNEY.[1]

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During the last few years, I have had the opportunity of operating on the kidney ten times, two operations being done on one patient. I might add an eleventh case operated upon a number of years ago for stone in the kidney. Three of these operations were nephrorraphies for floating kidneys, three nephrotomies for pyonephrosis, two nephrectomies,—one for sarcoma of the kidney, and one for tuberculosis of the kidney,—one a nephrotomy for a crushed kidney, one a nephrolithotomy, and, lastly, one operation was done for a supposed cholelithiasis and a floating kidney found. Although this number of cases is small, especially when compared with those in the larger clinics, it is sufficiently large and varied to gain some experience in this field of surgery. Ten of the eleven cases recovered from the operation, although one of them died four weeks later of pneumonia, and one died of suppression of urine following nephrectomy. In the short time at my disposal tonight, I cannot, of course, go over all the different indications for operations on the kidney and the different methods. I shall, therefore, confine myself, first, to relating the histories, and, secondly, to discussing such points which, in my estimation, are of superior importance:

Case I.—*Nephrorraphy for Floating Kidney.*—Mrs. E., 51 years of age, entered the Sisters' Hospital in December, 1890. When eighteen years of age, she noticed pain in the region of the right kidney. Nevertheless, she had no distressing symptoms, till three years previously, when the pain increased and became more or less permanent. At the same time she commenced to complain of dysuria and, occasionally, of bloody urine. During the last year she had complained of dyspeptic phenomena, had become extremely nervous and hysterical, so much so that her family considered her insane, and avoided her as much as possible. At the examination she looked thin, emaciated, and presented many symptoms of acute melancholia. She complained especially of pain over the right inguinal region. An oval tumor with all the characteristics of the kidney was felt here. It was very movable, could be grabbed through the thin abdominal wall, and moved up and down, and in and out. The urine was normal and the examination gave otherwise negative result. December 24, 1890, nephrorraphy was done by the usual oblique incision along the outer margin of the quadratus lumborum muscle, the kidney was found very

1. Read at the Stated Meeting of Buffalo Academy of Medicine, December, 6, 1892.

movable, moving up and down during respiration. Palpation did not show anything abnormal. The fibrous capsule was opened behind and stripped off for about two square inches, and the kidney fastened by four silkworm-gut sutures, two on each side, which passed deeply through the kidney substance, the fibrous capsule, and the fascia and muscles. The wound was packed with iodoform gauze down to the kidney itself. The first dressing was allowed to remain in place for fourteen days, and the wound was thereafter dressed in a similar way once a week. She was kept in bed six weeks, and then left the hospital with the wound healed. The kidney was then immovably fixed to the posterior wall. She was a great deal less tender from pressure ; she had gained in weight, but her hysterical symptoms had not improved. I have not heard from her since.

Case II.—*Nephrorraphy for Floating Kidney.*—Mrs. P., aged 39, wife of a physician, entered Sisters' Hospital on August 25, 1892. She had complained of pain in the right side for four years, occurring after confinement. The pain was steady and the whole region so tender, that she could not stand the slightest pressure, and no examination could be made. The pain was accompanied with a severe dragging feeling and was increased by the slightest exertion. Her general health had commenced to suffer ; she was thin, extremely nervous, complained of insomnia and inability to do anything whatever. She had consulted many physicians. One ascribed her symptoms to a lacerated cervix and operated it ; another treated her for a prolapsed womb ; a third declared she suffered from chronic ureteritis, etc. Menstruation was regular, walking almost impossible on account of pain. Under narcosis I discovered a prolapsed and movable kidney in the tender region. As all her symptoms pointed to this region and probably were dependent upon this prolapsed kidney, nephrorraphy was performed on August 6, 1892, in a similar way, only that the fibrous capsule was stripped off from the whole posterior surface, and that six kangaroo tendons were used as sutures.

The after-treatment was the same, and she left for her home in eight weeks. She had gained some in weight, could sleep better, and was less nervous and hysterical, had a good deal less pain, and could stand considerable pressure in the right inguinal region. Nevertheless, the result has, so far, not been as perfect as had been hoped for. She still complains of sleeplessness, and has some tenderness in the region.

Case III.—*Nephrorraphy for Floating Kidney.*—Mr. F., aged 32, entered the hospital on September 8, 1892. He had for seven years complained of indigestion. Two years ago, while lifting a heavy weight, he felt " something give away," had considerable pain, but did not pay any particular attention to it till six months ago, when he felt a tumor in the right side of the abdomen. During the year previously,

he had complained of a dull heavy feeling in the right inguinal region, occasionally in the left inguinal region, too. During the same time, his family observed increasing nervousness and irritability, verging on insanity; he was fretful, peevish, lost in health and weight, and was unable to work. By examination with Dr. Fowler, a tender and movable lump was felt in the right inguinal region, having all the characteristics of the kidney. Left kidney was also prolapsed, although not in so high degree, and was somewhat tender.

September 8, 1892, nephrerraphy on right kidney, which was fastened to the posterior wall by six kangaroo tendons, the fibrous capsule having first been stripped off. It was quite difficult to find the kidney and bring it up into the wound, it having fallen far into the abdominal cavity, and we succeeded only by gradually pulling the fatty capsule out with artery forceps and cutting it away.

The after-treatment was conducted on similar lines as in the other two cases. He was kept in bed eight weeks; the wound is healed, the tenderness considerably decreased, the appetite good, the weight increased, but he is still peevish, fretful, and hypochondriac, and spends most of his time in bed. Time alone will show whether the operation will benefit him permanently or not.

Case IV.—*Nephrotomy for Pyonephrosis.*—Mrs. M. K., aged 35, entered the hospital on December 10, 1890. She had for about one year complained of severe pain in the right lumbar region, coming on periodically every ten or fourteen days. The pain would occur on rising in the morning, and last till about noon, when she would pass a large amount of urine and pus with immediate relief. She would then feel well for a week or two, when a similar attack would occur. Half a year ago a tumor was discovered in the right lumbar region. It was at the examination of the size of the head of a man, filling out the whole space between the ribs and the ileum and extending forward to the outer margin of the rectus muscle. A distinct deep fluctuation could be felt both anteriorly and posteriorly. The urine was torpid and contained considerable pus.

On December 12th, nephrotomy—a puncture with a hypodermic needle having previously revealed pus. The incision was made along the outer margin of the quadratus lumborum muscle, the kidney opened, and about three pints of pure yellow pus removed. The interior of the kidney felt like one large pus sac, and no kidney tissue could be felt.

The cavity was irrigated with corrosive sublimate, the sac stitched to the skin, two large drainage tubes introduced, and antiseptic dressings applied. The sac contracted rapidly, and the patient left on January 6, 1892, with the wound almost healed, except a very small fistule through which a little pus was discharged. I have not heard from her since.

CASE V.—*Nephrotomy for pyonephrosis.*—G. P., aged 37, entered the Hospital on September 6, 1891. He had emaciated steadily for two years and complained of frequent urination. He knew of no cause, had received no injury, and his condition had not been diagnosticated till Dr. Cronyn saw him a few days previously. A large fluctuating swelling was felt over the left kidney, very similar to that of the previous case. The urine contained a large amount of pus. By posterior incision one quart of pus was evacuated, the cavity drained and irrigated. He left the Hospital greatly improved in six weeks, but with a fistule discharging some pus. I have not heard from him since.

CASE VI.—*Nephrolithotomy.*—Mrs. D., 45 years of age, had complained for two years of dysuria with bloody urine and pain in left lumbar region. The pain increased gradually, so that she was confined to her bed and had to use morphine continually. In January, '79, a tumor was discovered in the left lumbar region. It was punctured in March, 1879, and four ounces of pus evacuated. The swelling increased again and perforated at the point of puncture, leaving a fistule behind, through which stones occasionally were discharged. The urine contained considerable pus. The operation was done on December 31, 1879. To give place, two inches of eleventh rib were resected, but all the tissues were changed into a fibrous, almost cartilaginous, unyielding tissue, and no trace was left of the normal anatomy. The kidney could not be distinguished as such, the margin of the quadratus lumborum being the only thing which could positively be recognized. A number of stones were removed from a cavity in the supposed kidney, but nephrectomy, which I intended to make, had to be given up. She died four weeks later of pneumonia. Even at the post mortem it was found impossible to separate the kidney. It was intimately connected with the pancreas and colon descendens, as large as a fist, and contained a great number of cavities filled with pus and stones.

CASE VII.—*Nephrectomy.*—Mrs. S., 53 years of age, entered the Sisters' Hospital on October 14, 1892. She fell down stairs three years ago; one month later she commenced to complain of pain in left lumbar region, extending down into the thigh, and bloody urine. The pain and bleeding had since recurred periodically, especially when she walked around. Occasionally, she had passed clotted blood and had then had a good deal of dysuria. At present she complained of a deep-seated, boring, and gnawing pain in the left lumbar region, and of frequent micturition of bloody urine with a great deal of dysuria. She was referred to me by Dr. Cronyn, with the probable diagnosis of cancer of the kidney. A large movable tumor could be felt in the left lumbar region, extending forward almost to the outer margin of the rectus muscle; the tumor felt hard and solid. She had lately commenced to

lose flesh, and had a slight yellowish color of the skin. The amount of urine for three days averaged sixty ounces, containing considerable blood and traces of albumen.

October 17, 1892, nephrectomy by König's lumbo-abdominal incision, being a longitudinal incision along the margin of the quadratus lumborum muscle, and curving forward from its lower end along the crista ilei well towards the outer margin of the rectus muscle. Without much difficulty the large tumor was isolated, separated and brought up into the wound. The pedicle was perforated from behind with a blunt aneurism needle near the kidney and doubly ligated with chromated catgut. As additional security, a pair of large curved forceps were applied outside the ligature, and the kidney then removed. The enormous wound was plugged with eighteen yards of iodoform gauze strips, and the incisions closed with sutures except two inches behind.

The further result was extremely favorable; the temperature rose once to 102°, but was normal from the fifth day. The amount of urine on first and second days was ten ounces to sixteen ounces, third day, possibly on account of the use of digitalis, sixty ounces, and since that time about sixty ounces every day; the urine became in a few days normal. The wound healed kindly and the patient left the hospital in four weeks recovered.

I add the examination of the kidney by Dr. Wm. C. Krauss: Weight of kidney, fifteen ounces; size, greatest length, sixteen centimeters; greatest width, eleven centimeters; greatest thickness, eight and one-half centimeters; shape — the kidney presents an irregular unsymmetrical appearance, possessing little of its original kidney shape. Its predominant characteristic is the number of large nodules which are implanted upon its surface and which seem, in fact, to compose the entire organ. The cephalic end is somewhat tapering, while the caudal end is broad, bifurcated, and massive. On its convex surface a large flattened nodule is found growing like a cauliflower excrescence, and separated from the caudal and cephalic nodules by deep furrows. The body of the kidney presents a multi-nodular appearance with shallow, winding grooves. The concavity of the kidney has little to warrant its name, being more convex than concave. A large mass of fat found here renders it difficult to dissect out the ureter and the renal vessels. The consistency of the mass varies. The nodules at the cephalic end and the one on the convex surface are soft and fluctuating, while the body of the kidney and the nodules at the caudal end are hard, dense, and firm. The capsule was non-adherent, not thickened, and easily torn.

On section, nothing could be found of the pelvis, and the cut surfaces show large alveoli filled with a soft, reddish grumous mass. Hemorrhages had taken place in some of these alveoli. A small section of the caudal nodules still retains some kidney structure, but with

this exception the entire organ is transformed into diseased tissue. Examining some of the soft, semi-fluid matter microscopically, revealed a predominance of small, round cells, some small spindle cells, and a minimum amount of inter-cellular tissue. These cells are characteristic of sarcomatous growths, and decide the nature of the tumor, namely, a small round-celled sarcoma.

The external appearance of the kidney, presence of large alveoli, and clinical history, are all in harmony with the diagnosis.

Case VIII.—*Nephrectomy following nephrotomy.*—Miss S., aged 24, had for several years complained of pains in left lumbar region. The attacks became more and more frequent, and, at last, almost continuous. During the last half-year she had had painful and frequent micturition. The urine contained a great amount of pus, but was, at times, almost clear. By the examination with Dr. Thornton, a tumor was felt at the left kidney, very sensitive to pressure. The kidney could be felt by bi-manual examination, generally enlarged, and could be easily palpated through lumbar region.

An explorative incision was made in February, 1891, and about two ounces of pus removed from the pelvis of left kidney. The wound did not heal, and took on a tuberculous appearance, but the pain was very much relieved, as was the dysuria. Ten weeks later, in May, 1891, the kidney was removed by nephrectomy and found to be tuberculous throughout. Total suppression of urine followed, and she died of uremia four days later. *Post-mortem* examination was made, but so late that nothing could be decided in regard to the other kidney.

Case IX.—*Nephrotomy for Crushed Kidney.*—In January, 1891, I was called to Oil City, Pa., to see Mr. W., aged 22, who, four days previously, had been caught obliquely between the bumpers while coupling cars. He was able to travel thirty miles after the accident, but complained then of faintness, pain, vomiting, and dysuria. The water contained a good deal of blood, tympanites supervened, and the temperature increased. It was supposed by his three attending physicians that he had either ruptured his guts or bladder, and that a laparatomy was necessary. At the examination profuse ecchymosis was seen around the anus and perineum, the urine was of dark, dirty color, intensely mixed with blood, a fulness and diffuse ecchymosis were seen in right lumbar region. As the diagnosis of crushed kidney seemed evident, the patient was removed to Buffalo the same night, and nephrotomy performed right away on his arrival. The kidney was found lying in a large cavity filled with blood and urine, and the lower half was crushed to a pulp. The bleeding was so terrific that nephrectomy could not be done. I, therefore, simply disinfected the wound and plugged the whole cavity with iodoform gauze. The urine passed for a time through the wound, the crushed parts came away by irrigation,

and he left the hospital recovered in eight weeks. He was killed on the same railroad half a year later.

The following case is of interest on account of the wrong diagnosis:

Case X.—Mrs. R., 45 years of age, had for six months complained of severe pain one and a half inches to the right of the ensiform cartilage. The pain would come periodically, and be attended with yellow color of skin and conjunctivæ and clay-formed stools. Five weeks previous to her entrance in the hospital, she had symptoms indicating peritonitis, followed by a very severe attack of pain and jaundice, lasting four days. She felt then a lump in right hypochondriac region of the size of an egg, and corresponding to the gall-bladder. She entered in order to have a cholecystotomy performed, it being supposed from the history and symptoms that she suffered from gall-stone colic. Over the region of the gall-bladder a pear-formed, nodulated, apparently immovable tumor was felt, which had all the appearances of an indurated gall-bladder filled with gall-stones.

An explorative incision was made in September, 1892, along the right margin of the rectus muscle, but on entering the abdominal cavity, much to our surprise, no tumor was found, and even the gall-bladder was absent. A hard lump was felt behind the colon transversum. An opening having been torn through the mesentery of the colon transversum, it was found to be a floating kidney. The wound was, therefore, closed, and the patient left the hospital in two weeks. She has felt well since, and, so far, had no attacks.

A similar mistake is reported by Dr. Willy Meyer, who, also, opened the abdomen for supposed tumor of the gall-bladder, but found a chronic purulent nephritis and pyonephrosis, which, twelve days later, was removed by nephrectomy. Thirty-eight days later, during menstruation, sudden suppression of the urine occurred, for which, two and a half days later, nephrotomy was performed on the only remaining kidney, and the ureter, for two inches, found blocked with shreds, blood and pus. They were removed, the ureter flushed out, and the kidney at once resumed its function, and the renal fistula healed in the course of eight weeks.

This case is of interest in suggesting a possible help in case of total anuria, following a nephrectomy. I have little doubt but that nephrotomy ought to have been done in my fatal case of nephrectomy. Similar successful operations of nephrotomy for suppression of urine after nephrectomy have been reported by Bardenheuer, Lange, Clement, Lucas, and others.

If, as Willy Meyer pertinently asks, suppression sets in immedi-

ately after a nephrectomy, where the retroperitoneal incision has been made, where strong antiseptic solutions have not been used, where there has been no shock and no great loss of blood, where the cystoscope has shown a well-working kidney on the other side, and where continuous stimulation fails to work—is not, then, nephrotomy on the other side indicated, as it is the only remaining hope? If no obstruction is found, artificial depletion of the hyperemic organ may, perhaps, prove of value.

Floating kidney may exist without "special symptoms. On the other hand, through the severity of pain, the inability to work, the gastric and mental complications, and the disturbances in nutrition, life may be materially shortened. The dragging pain predisposes to strange fits of melancholia, there is almost always loss of appetite, with vomiting and cardiac palpitations. The neuralgic pain is always on the affected side, and, at times, most excruciating in character." (*Med. Record*). The vomiting may increase to complete gastric intolerance (Mathieu), and be accompanied with, or terminate in, severe gastralgic pains. The vomiting is not preceded by nausea. The cause is, according to Mathieu, traction on the duodenum or peritoneum. Careful search should be made for floating kidney, where vomiting constitutes the principal symptom, as, otherwise, such vomiting may suggest tabes, pregnancy, gastric ulcers, intestinal obstruction, hysteria, or poisoning.

Oerum mentions as etiology of floating kidney, abnormal length of renal vessels and the presence of a mesentery, but cannot determine whether it is congenital, or acquired little by little.

Bang, of Copenhagen, found in two post-mortems, that the floating kidney was detached from the suprarenal gland, which kept its place, that the fat in the capsule had disappeared, and that the branches from the renal artery to the suprarenal gland were wanting. He mentions that floating kidney seldom is found on the left side, and gives, as cause, that the left suprarenal veins empty into the renal vein, while on the right side they empty directly into vena cava. This seems to confirm his idea about the detachment of the suprarenal gland. He explains the symptoms, pain, vomiting, chills, and diminished diuresis, as an acute retention of urine, and acute hydronephrosis, on account of sudden dislocation of the kidney, by which the upper part of the ureter is so much bent that the urine cannot escape. When the hydronephrosis has reached a certain degree, the pressure will surmount the difficulty. Mathieu explains the symptoms in a similar way.

Dr. Keen has collected 134 cases of nephrorraphy with four deaths, *i. e.*, 2.9 per cent.

Of 116 cases, reviewed after at least three months had passed, 57.8 per cent. were cured, 12.9 per cent. improved, and 19.8 failed. When the fatty capsule alone was sutured, the failures amounted to 26.6 per cent. If the fibrous capsule was sutured, 25.9 per cent. were failures; if the kidney itself was included in the suture, 13.5 per cent. were failures.

Prof. Riedel thinks that the reason why so many operations for floating kidney have been unsuccessful, is that the organ, soon after the operation, changes its position, its lower portion turning forwards and lying upon the inner surface of the posterior upper margin of the pelvis. This may be avoided if the kidney is also attached to the diaphragm. Riedel tried to accomplish this in three cases by suturing the lower portion of the kidney to the periosteum of the twelfth rib. It was unsuccessful, because the upper portion of the organ was displaced forwards and the cicatrix became painful. He has since, in five cases, used another method successfully, and the patients have kept well from one to one and a half years. He exposes the kidney by the usual incision, opens the fatty and fibrous capsule, and pushes, then, the organ so far upward behind the diaphragm, that only its lower half is exposed to view. The median portion of the fibrous capsule is then fixed to the anterior portion of the quadratus lumborum muscle by deep catgut sutures, while at the sides the peritoneum and subserous fat is marginated and sutured to the capsule. In this way the lower segment is fixed, while the upper portion is still detached and lies upon the diaphragm. A strip of iodoform gauze is now thrust up between the kidney and the diaphragm, so that the entire posterior surface of the kidney is covered. A second gauze tampon is introduced into the place formerly occupied by the kidney, and a third is placed upon the lower portion of the organ, lying upon the anterior surface of the quadratus lumborum muscle. To each strip a strong silk thread is attached. The sacro-lumbalis and abdominal muscles are sutured over the tampons, leaving openings for their extraction. The cutaneous wound is thereafter plugged. The tampons are withdrawn in four weeks, unless necessary earlier; first, the middle one, then the lower one, and then the upper one, and a deep cavity is then found lined with granulations. A drainage-tube is now introduced, and the wound heals rapidly. The idea is, of course, to produce strong adhesions

to the diaphragm. The patients were kept quiet in bed for twelve weeks.

In regard to the mortality after nephrectomy, it deserves mention that Schede has extirpated the kidney seventeen times with one death. This is a different death percentage than usually given. Gross (223 cases) gave a death-rate of 44.6 per cent., Broden, of Paris, (235 cases,) 44.4 per cent., Czerney (72 cases), 44.4 per cent. Newman gives the mortality, after lumbar nephrectomy, as 30.5 per cent., after abdominal nephrectomy, 47.1 per cent. Schede considers the retroperitoneal transverse section in itself an almost harmless method. In cases of exhaustive hemorrhage from the kidney, nephrectomy is the only remedy. In one interesting case of renal hemorrhage, in which it was doubtful which kidney was affected, Schede opened the bladder by suprapubic cystotomy, inserted catheters into both ureters, and brought the ends out through the penis by aid of a lithoclast. The bladder wound was thereafter closed. The same evening the blood was seen to escape from the catheter in the left ureter.

The question about healing of wounds in the kidney and regeneration of renal tissue after wounds, has been clearly answered by Barth, of Marburg. After a wound in the kidney, healing occurs in the usual way. A bloodclot fills the defect, connective tissue proliferation takes place, and, lastly, cicatricial contraction occurs, but the cicatrix is never filled with glandular structure again, and there is no such a thing as a re-creation of new and active renal tissue. A compensatory hypertrophy in the intact portion of the operated kidney, as well as in the other kidney, may, perhaps, occur, the glomeruli enlarge, the capsules dilate, and the canaliculi grow in circumference and length. These changes are observable in the cortical substance by an increase in size of all its elements.

Two instruments are of importance for diagnostic purposes, particularly in nephrectomy. It is of the utmost importance to find out whether the other kidney is in good working order or not. Catheterizing the ureter is in the female, at best, a very difficult proceeding ; in the male, impossible without first performing perineal cystotomy, or else, as Schede did, suprapubic cystotomy. By the use of Leiter's cystoscope with incandescent lamp, we are able to see the openings of the ureters, the jets of urine as they pass out through the ureters, to note their frequency, color, and consistency. With a common urethroscope with electric or simply reflected light, we may probably be able to see the ureters, if introduced

into the bladder through a perineal wound in the male or through the urethra in the female. The cystoscope has, probably, a great future, both in regard to diseases of bladder and of kidneys.

Fenwick has published his experiences with the cystoscope in the *British Medical Journal* of October 18, 1890. He recognizes the dangers of performing nephrectomy without investigating the working capacity of the other kidney. Cystoscopy of the urethral orifices is a great help in this direction. The efflux of urine establishes at once the presence of a working kidney. The sluggishness or rapidity with which the jets succeed each other mark the absence or presence of irritation in the pelvis. The color of the jet, whether it be clear, muddy, or bloody, testifies to the normal or abnormal condition of the secretion. The urethral orifice, moreover, becomes implicated by descending changes from the pelvis of the kidney, and its shape and appearance may indicate a corresponding condition in the pelvis and ureter, particularly in scrofulosis.

Three methods have been used for nephrectomy: (1) Abdominal nephrectomy, through Langenbeck's incision in the semilunar line, or through Barker's median incision; (2) lumbar nephrectomy by oblique incision along the outer margin of the quadratus lumborum muscle, the incision being enlarged by curving forwards from its lower end towards the umbilicus (König's method), or by adding a vertical incision downwards from the upper end of the oblique incision (Moris's method); (3) by lateral extraperitoneal incision, reaching from the eighth rib to the anterior superior spine of the ileum. The different muscular layers are cut through and the peritoneum stripped up from the iliac fossa and from the anterior suface of the kidney. If we compare these three methods, there is little doubt but that the lumbar method is the most advantageous, particularly König's. Excellent space is gained and the kidney may be exposed with great facility, the peritoneum is not opened, and good drainage is provided in the proper place. The abdominal nephrectomy has but one advantage, *i. e.*, that we may satisfy ourselves by palpation of the condition of the other kidney before proceeding to remove the diseased one, and this advantage is more than counterbalanced by the dangers incidental to a laparatomy.

The lateral extraperitoneal method offers no advantages over the lumbar incision, and predisposes more to ventral hernia. The question, whether nephrectomy ought to be performed primarily for

a large pyonephrosis or only secondarily following a nephrotomy, is not settled. In my cases I chose nephrotomy, sewing the sac to the skin, and I doubt very much that primary nephrectomy can be done in cases in which the kidney has been transformed into a large thin-walled sac containing more than a quart of pus. I should consider it advisable in such cases to wait with the nephrectomy until the sac has contracted. Even then the nephrectomy will probably be difficult on account of adhesions between the peritoneum and the former cyst wall.

One question more deserves a few words, Where to incise the kidney in cases of nephrolithiasis, and for other explorative purposes? Mr. Jordan Lloyd has proposed to make a puncture in the lower end and posterior border of the kidney with a long-bladed tenotome, in the direction upwards and inwards, making for the lowest of the calyces, and through this opening introduce a proper sound and systematically explore the pelvis and calyces. Mr. Moris advises to enlarge this wound sufficiently to introduce the finger and instruments. There is, of course, more danger of hemorrhage by this proceeding, but, on the other hand, Barth has shown that such wounds may be sutured and heal with ease, and the hemorrhage will, probably, stop by a properly applied suture. Secondly, we avoid, probably, the urinary fistula, which is apt to occur if we make our incision into the posterior wall of the pelvis. Mr. Thornton maintains, in opposition to most other writers, that wounds into the pelvis of the kidney heal well enough. I have no particular experience upon this point, as all my nephrotomies were made for pyonephrosis, in which the whole kidney was changed into a pus-sac, with the exception of one case—number eight—in which nephrotomy was done for tuberculous kidney with moderate pyonephrosis. Urinary fistula followed, as a matter of course, and nephrectomy was done ten weeks later, resulting in death from anuria. Nevertheless, we could only think of incising the kidney through its substance, when we felt sure of the diagnosis—stone—and were able to suture the wound again. If the kidney has to be drained, the pelvis is the only proper spot for incision.

195 Franklin Street.

"Are there too many doctors?" asks an exchange.

"No, there are not half enough; but there are too many men pretending to be doctors who are not."—*Texas Siftings*.

Society Proceedings.

BUFFALO ACADEMY OF MEDICINE.

Stated Meeting held December 6, 1892.

Reported and edited by WM. C. KRAUSS, M. D., Secretary.

C. C. FREDERICK, M. D., presiding.

Dr. MYNTER read a paper on Surgery of the Kidney, and Dr. PARK read a paper on Actinomycosis. (See Original Communications, pp. 325 and 338.)

DISCUSSION.

Dr. H. E. HAYD: I am satisfied that the floating kidney exists more frequently than most of us are aware of, and it has been my experience that the diagnosis is very often made by the patients themselves. All reflex disturbances are apt to be overlooked, and particularly when the pathological condition produces so many and so varied symptomatology. Of late I am questioning more and more this so-called nervous dyspepsia, and in these cases always examine carefully for the floating kidney. If the patient be placed on her back, the kidney may escape detection, unless perchance found in the altered position, but by tilting the patient on the side and deep pressure made on the loin, this conical-shaped body may be very easily detected; in fact, the patient will often call your attention to this lump, which comes and goes, as she puts it. These cases of Dr. Mynter I saw and assisted him in the operation. One case was a particularly interesting one, since the patient was operated upon with the expectation of opening the gall-bladder and removing a handful of gall-stones. The woman had been seen by me in three definite attacks of gall-stone colic, great pain over the region of the gall-bladder, vomiting clay-colored stones, high colored urine and discolored conjunctivæ. The stools were carefully examined, but no gall-stones found. An operation was advised, and upon opening the abdomen, to our surprise we found a round mass pushing its way from behind the mesentery forward. Since the operation the patient has been very much worse. This mass is now fixed forward by adhesion, but can, no doubt, be released by a subsequent operation. I don't believe the results of nephrorraphy are as satisfactory as some of the statistics which Dr. Mynter gives us. Unfortunately, these women continue to suffer a great deal,

perhaps, from the fixative adhesions, but as the operation is simple, easily done, and practically without danger, I feel that it is justifiable.

Dr. R. Park: I have operated upon the kidney many times. The first case was that of a child, twenty-three months old. I removed a fibro-cystic kidney, by abdominal section, and the child recovered. The other kidney became similarly affected soon thereafter, and the child died. The operation of nephrorraphy I have done twice. The first case was that of a young man, concerning whose affection there was a difference of opinion. I made a laparatomy, found a floating kidney, then made a lumbar section and fixed it. He recovered. After a time, he desired to have it removed, on account of the pain and other disagreeable symptoms. On removing it, I was struck by the density of the adhesions about it. The pain may have been due to these adhesions. He is fully recovered now. Last Winter, I had a case in the hospital of a woman with two floating kidneys. It was impossible to tell which was the more movable, so I made a laparatomy, decided upon the one which I thought was the more movable, then made a lumbar section and fixed it. Last Summer, I had a case of abscess of the kidney. I operated, and found a tubercular kidney, about as large as a pitcher. I removed all the cheesy material, closed the wound, and the woman recovered. Some pus comes from the kidney, but whether urine does or not, I cannot say.

Dr. H. Mynter: As to the frequency of floating kidney, I have seen many cases during the past few years. I think it is more frequent than we suppose. Where one kidney is healthy, I advise nephrectomy of the floating kidney. I do not regard the operation as a very serious one.

Dr. F. S. Metcalfe: Regarding the treatment of actinomycosis, I am informed that in Chicago, under the supervision of the Department of Agriculture, mild cases are treated successfully with the iodide of potash.

Dr. R. Park: Iodine has been injected hypodermically, in cases of actinomycosis, with but little success. Electrolysis has little power over these masses.

The wonderful progress made in surgery is shown from the fact that only nine per cent. of all operations in amputation are fatal.—*Omaha Clinic.*

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting, November 23, 1892.

Dr. Henry R. Wharton read a paper, entitled :

THE TREATMENT OF ISCHIO-RECTAL ABSCESS AND FISTULA-IN-ANO.

I have been requested to say a few words this evening on the treatment of ischio-rectal abscess and fistula-in-ano to open the discussion upon these subjects by the members of this society.

Treatment of Ischio-Rectal Abscess.—In this form of abscess the purulent matter occupies the loose cellular tissue of the ischio-rectal fossa in close relation to the rectum, and from the anatomical peculiarities of the tissue in which it is situated it is apt to burrow widely, and, if left to itself, to open into the rectum or through the skin into the region of the anus, and result in the production of one or other forms of fistula-in-ano,—either the complete form or the external or internal incomplete form of this affection.

To obviate this unfortunate result, the prompt treatment of ischio-rectal abscess is urgently demanded, and I am decidedly of the opinion that attempts at abortive treatment of this form of abscess are worse than useless, that by such treatment valuable time is lost, and the surgeon has, finally, to resort to surgical treatment after extensive burrowing of pus has occurred, with possibly perforation of the wall of the rectum.

It is, and has been for a long time, a surgical axiom that an ischio-rectal abscess should be opened promptly, and, if so treated, the probability of a fistula-in-ano resulting is much diminished. I formerly was satisfied to open these abscesses by a small incision, evacuate the pus, and in many cases a prompt recovery took place without the formation of a fistula, but in others a fistula resulted ; whether the rectal communication was present at the time of opening, or resulted from the imperfect drainage secured by a small incision, I am unable to say, but I am sure that the results I have obtained in these cases during the last few years since I have adopted Mr. Allingham's method of dealing with these abscesses have been much more satisfactory. By this method of treatment, even in cases where I have been able to demonstrate a rectal communication at the time of the operation, I have secured healing without the formation of a permanent fistula. Therefore, in any case of inflammation of the tissues of the ischio-rectal fossa, whether the evidence of abscess be clearly demonstrated or not, I

follow the method which is recommended by Mr. Allingham, which consists in etherizing the patient and placing him in the lithotomy position, after having located the position of the indurated tissue or abscess ; and a rectal examination by means of the finger will often assist in locating the position of the abscess. A free incision, several inches in length, is made through the tissue, outside of and parallel with the fibers of the external sphincter muscle, and the incision is gradually deepened until the pus cavity is reached. It is then slit up to the length of the skin incision, and the cavity is explored with the finger, breaking down any loculi which tend to divide up the abscess cavity, and so make one cavity of the abscess. The cavity of the abscess is next washed out with a 1 : 2000 bichloride of mercury, or 1 : 60 carbolic acid solution, and is then packed with strips of iodoform gauze, and a pad of the same gauze is placed over the wound, and over this a pad of bichloride of mercury cotton is laid, and the dressing is secured in position by a T-bandage. An opium suppository is introduced into the rectum, and the bowels are kept quiet for three or four days.

The dressing is not removed for two or three days, and at this time the packing is usually loose and can be removed without difficulty, and after its removal the cavity is injected with peroxide of hydrogen, and it is then irrigated with a 1 : 2000 bichloride of mercury solution, and next the cavity is lightly packed with strips of iodoform gauze, and the wound is covered with a pad of iodoform gauze and bichloride cotton. The same steps are observed at subsequent dressings, which are made at intervals of two or three days, and the cavity usually heals rapidly by granulation and contraction, and in a few weeks it is usually completely healed.

Mr. Allingham recommends that the cavity be packed with lint saturated with carbolized oil, and I have employed this material, but now prefer to use the iodoform gauze, as I stated above.

I will report briefly a case in which this treatment was adopted. In January of this year I saw, with Dr. Musser, a lady, forty years of age, who had suffered for a few days with inflammation of the tissues of the ischio-rectal fossa. On examination of the case I found the left buttock for a distance of six or eight inches from the very verge of the anus, indurated, hot, and painful ; no soft spot of pointing could be detected. An examination of the rectum showed bulging of the walls of the rectum in the left side, and upon withdrawing the finger a small amount of pus escaped from the anus. The patient also stated that some matter had been dis-

charged from the rectum during the day. The patient was etherized and a curved incision four inches in length was made just outside of the line of the sphincter muscle. This was gradually deepened until the cavity of the abscess was opened and a free discharge of pus, many ounces, escaped. On introducing my finger, I found that the cavity extended laterally for some distance and passed upwards between the wall of the rectum and the sacrum. In fact, with my two fingers introduced to their full length in the wound, I could not reach the upper portion of the abscess cavity. A careful examination failed to reveal the position of the opening into the rectum. The abscess cavity was thoroughly irrigated with a 1 : 2000 bichloride of mercury solution, and was then packed with strips of iodoform gauze, and a pad of gauze and bichloride cotton was placed over the external wound and held in place by a T-bandage. The patient did well after the operation, and the cavity was dressed in the same manner every second or third day for the first two weeks, and at less frequent intervals after this time for six weeks, at which time healing was complete.

There is no question in mind that there existed a communication between the abscess cavity and the rectum before the operation, as was shown by the discharge of pus, and by the discharge from the wound about a week after the operation of a piece of bone a little larger than a grain of corn. This bone Dr. Harrison Allen examined for me, and pronounced it to be a portion of a transverse process of a sheep's vertebra. It had been swallowed with the food, and had ulcerated through the wall of the rectum, and had set up inflammatory action in the peri-rectal cellular tissue, terminating in this extensive abscess.

The points in the treatment of ischio-rectal abscess I would especially call attention to are : Early and free incision ; thorough breaking down of any secondary abscess cavities into one cavity ; irrigation of the cavity with peroxide of hydrogen and a 1 : 2000 bichloride of mercury solution, or 1 : 60 carbolic acid solution ; packing with iodoform gauze and subsequent dressings made in the same manner, care being taken not to pack the cavity too firmly. Following this form of treatment, the results of this variety of abscess in my hands have been most satisfactory.

Treatment of Fistula-in-ano.—Ball classifies fistula-in-ano as complete rectal fistula in which there is a sinus leading from the rectum to some point in the skin in the region of the anus ; and the incomplete fistula he describes as internal rectal sinus, a sinus

passing from the rectum into the peri-rectal cellular tissue; external rectal sinus, one having an opening on the skin passing into the cellular tissue around the rectum, but not perforating the wall of the gut.

As regards the treatment of fistula-in-ano, the fact should not be lost sight of that it is possible to have a fistula-in-ano heal under simple treatment, without operative interference. This is more apt to occur in recently formed fistulæ, but, as the result of palliative treatment is always uncertain in these cases, and a long course of local applications is required, this method of treatment is not generally adopted. Allingham says that he has had twenty-one successful cases under this method of treatment, and a number of cases in which he was unable to effect a cure after prolonged treatment. When this form of treatment is adopted, it consists in trying to obliterate the fistulous tract by rest, free drainage, and the local use of stimulating applications, such as carbolic acid, nitrate of silver, and sulphate of copper. Rest to the part is best secured by the wearing of a firm anal pad secured by a T-bandage.

At the present time, the most widely adopted and successful treatment of complete fistula-in-ano is by incision. The patient is etherized and placed on his side, or in the lithotomy position, a probe-pointed flexible director is then passed through the external opening of the fistula and conducted into the rectum; the finger is then passed through the anus until it comes in contact with the end of the director, which is bent and brought out of the anus. The tissues on the director are then divided with a scalpel or by means of scissors, care being taken to see that the division of the fibers of the sphincter muscle is made at a right angle to the course of the muscular fibers; oblique divisions of the muscle do not heal well, and are apt to be followed by a loss of power in the muscle. The main track of the fistula being slit up, it is next explored for the presence of branching sinuses, and if these are found they are slit on a director. In indurated sinuses it is often well to make an incision through the base of the sinus, which seems, in many cases, to facilitate the healing. If the cutaneous edge of the fistula or sinuses tend to overlap each other near the anus, they should be trimmed off with scissors. The surface of the exposed fistula or sinuses is next freshened with a curette, and, after being washed out with a 1 : 2000 bichloride of mercury solution, the cavities are packed with strips of iodoform gauze or lint saturated with carbolized oil. A compress of gauze is next applied

over the wound, and over this is placed a pad of bichloride cotton, and the dressing is held in place by means of a T-bandage. The patient is given an opium suppository, and the bowels are kept quiet for three or four days.

The after-treatment of fistula-in-ano is most important, and many unfavorable results are due to carelessness in this particular. On removal of the primary dressing, at the end of two or three days, the sinus should be washed out with peroxide of hydrogen and a 1 : 2000 bichloride of mercury solution, and a strip of iodoform gauze should be lightly passed to the bottom of the wound and allowed to rest between its edges. The mistake is often made in packing these wounds forcibly, which interferes with healing. A piece of gauze and a pad of cotton is next applied over the wound, and is held in place by a T-bandage. The patient should be kept on his back two or three weeks, and the wound should be dressed in the manner described, daily, or on alternate days, and at the end of three or four weeks healing is usually completed.

In cases of fistula-in-ano of the horseshoe variety, one division only of the external sphincter muscle should be made, and the branching sinuses should be laid open by curved incisions passing parallel with and outside of the line of the muscle. Sinuses extending to the perineum or buttock should be freely laid open.

The treatment of incomplete fistula of the external variety, or of external rectal sinus, consists in passing a director into the sinus down to the rectum, and if, on passing the finger into the rectum, it is found that the director is separated only from the finger by the mucous membrane, and its position is low down in the rectum, it is better to push the director into the bowel and bring it out at the anus and divide the tissues as in complete fistula, and treat the resulting wound as described after the operation for complete fistula. If, on the other hand, the rectum is merely exposed at the bottom of the sinus, it is well to lay the sinus freely open to this point, curette its surface and pack it lightly with iodoform gauze. Subsequent dressings should be carefully made and the sinus will usually heal, though the course of treatment usually extends over a longer period of time than in cases where the sphincter muscle has been divided.

In internal incomplete fistula or internal rectal sinus, when the rectal perforation is low down, a bent director should be passed into the anus, and its point should be passed through the rectal opening and made to project on the skin near the anus. This is

cut down upon and exposed and the director is passed through it, making the fistula a complete one, and the tissues on the director are divided. The subsequent steps of the operation and dressing are similar to those mentioned in the cases previously described.

When the rectal opening is high up and it is considered inadvisable to divide the sphincter muscles or the bowel to its full extent, a director should be passed through the internal opening and the surgeon should cut down on its point from an incision through the skin a little outside of the sphincter muscle. When it has been exposed, the sinus or cavity should be curetted and irrigated and dressed with iodoform gauze, and, by careful dressing, the wound may be made to heal from the bottom, the rectal communication being shut off by granulation and subsequent contraction.

Among various methods of treating fistula-in-ano should be mentioned the elastic ligature and the treatment by excision.

The elastic ligature is principally used in those cases in which the fistula opens into the rectum at a high point, where division by the knife would be accompanied by free hemorrhage. When employed, a cord of india-rubber one-sixteenth of an inch in diameter is threaded to an eyed-probe, which is passed through the cutaneous opening into the rectum and brought out at the anus ; before tying the ligature, the skin and mucous membrane to the edge of the anus should be divided so that the ligation can bury itself when tied, thereby saving the patient pain, and at the same time facilitating the more rapid division of the tissues by the ligature. After the ligature has cut its way through the tissues, it is often found necessary to dress the wound in the same manner as in cases where incision has been practised, to secure satisfactory healing.

The treatment of fistula-in-ano by excision has been recommended by some surgeons. The fistulous track being dissected out, the parts are brought together by deep sutures, and if primary union is obtained, there is a great saving in the time of treatment. The form of fistula in which this method of treatment is best suited, is the complete fistulæ, which are not very deep and have a straight course ; branching fistulæ, and ones very deeply situated, I do not think are favorable cases for this procedure. If in using this method of treatment it is found that primary union has not occurred, as shown by the escape of a little pus from the line of the incision, the sutures should be removed and the edges of the wound should be separated, and it should be lightly packed and

treated — in fact, as a case in which primary incision had been practised.

As fistula-in-ano often occurs in patients suffering from phthisis, the question of the advisability of operating upon these cases often must be considered. The rule in these cases is to operate, unless the patient's disease is in a very advanced state, when no repair could be likely to take place. In the majority of phthisical cases the result of the operation is satisfactory.

The only serious complication following the operation for fistula-in-ano is incontinence of feces, and this is, fortunately, a rare complication. It may be guarded against by care in dividing the sphincter muscle only at one point, and by seeing that the division of the muscle is not an oblique one. When incontinence exists, it may be relieved in many cases by excision of the cicatrix in the sphincter muscle, and by suturing the freshened ends of the muscle together by catgut sutures, or by applying a point of Paquelin's cautery to the cicatrix or to several points of the mucous membrane and skin of the anal margin.

DISCUSSION.

Dr. Thomas S. K. Morton: I am glad that Dr. Wharton has insisted upon early operation in ischio-rectal abscess. This affection involves loose cellular tissue, richly supplied with lymphatics, and may give rise to profound septicemia, if not pyemia, if not relieved early. I have recently heard of a case of small ischio-rectal abscess which gave rise to pyemia and death. The incision should be made as soon as the brawny induration is evident, feeling certain that if there is any inflammation in this region, where the tissues are so poorly supplied with blood-vessels and other means of destroying septic material, suppuration will follow.

In washing out these abscesses with a strong antiseptic solution, it is important to see that all that goes in comes out, and that none enters the bowel, for a few drachms of a strong mercurial solution entering the bowel would give rise to poisoning.

The packing should be applied loosely. Here, as well as elsewhere, much damage can be done by too tight packing. There is something about iodoform gauze that makes it superior to every other material for packing. What this is I do not know, but under its use the dressing is drier, there is less pus, and the whole case goes on in a more orderly and rapid manner. I like, also, to rub iodoform into the walls of these abscesses and into the sides of a fistula. Peroxide of hydrogen is one of the best antiseptics in these cases.

In regard to the bowels, I have a predilection for keeping them

loose in all operations about the rectum, and very early give such drugs as will produce partially liquid stools. This gets rid of the great pain and the terrible anxiety of the patient looking forward to the movement of bowels that have been constipated for several days after an operation.

Repacking is important, but, in many cases, simple inspection, particularly in fistula, is all that is necessary to see that healing is progressing properly, and, if necessary, the wound can be painted with some stimulating solution, as a fifteen-grain solution of silver nitrate, balsam of Peru, etc. By careful watching, the painful process of repacking can often be avoided, although in some cases it will be required to secure uniform healing from the bottom.

Coming to fistula-in-ano, we should bear in mind that there are two great varieties ; one is the tubercular, and the other the simple or traumatic, where a small foreign body perforates the wall of the rectum and sets up inflammation in the cellular tissue. Probably, the ones that form slowly are simple, but may become infected with the tubercle bacillus. Granting that the large majority are tubercular, the treatment must be thorough and radical, in order to get rid of the tubercle bacillus.

I agree with Dr. Wharton in regard to the use of the ligature, that only cases involving high section of the bowel justify that method. By this method we are apt to overlook the branches, which are so common.

It is not always best to carry the director through the fistula and lay it open at once. It is sometimes better to dissect from the outer opening, treating the branches as they are met with, rather than to make the incision and have the field of operation obscured by blood.

The excision of the fistula has not proven a success. I have conversed with one or two men who had much to do with the introduction of this method, and they acknowledge that, after using it for several years, it has proved far less useful than had been hoped. There were but few cases in which excision could be done, and, of these few, the majority suppurated, and the edges of the wound had to be separated.

In fistulas that are tubercular, and, perhaps, in all, after thorough dissection and opening up all branches, I have wiped the wound out with pure caustic potash. That stops the hemorrhage, it kills the lining membrane throughout, and, perhaps, some healthy tissue, but I think that we get a more radical operation, particularly in tubercular cases. We must, however, be careful not to go too deep. After using the caustic potash, it is well to carry over the wound a sponge saturated with vinegar, in order to stop the action of the alkali. The indurated tissue can also be destroyed with the Paquelin cautery, but when this is used, the surrounding tissues must be very carefully protected from the radiating heat.

There are scarcely any fistulas that cannot be benefited by opera-

tion. There are many that cannot be cured, but all that I have seen have been benefited. I can recall several cases that are going about with a small sinus running high up, but yet are remarkably comfortable when contrasted with their former deplorable condition.

Dr. A. J. Downes: Neither of the gentlemen has referred to multiple fistulas. I recently had such a case in a tubercular woman forty-two years old. During the past ten years she had had four ischio-rectal abscesses that had opened, and numerous other phlegmons that had not opened. I operated on her four weeks ago at St. Joseph's Hospital. I found four fistulas. On the left, two,—one close to the external sphincter and entering the bowel behind the internal sphincter: the second, an inch and a quarter from the margin of the bowel and entering the bowel an inch and a half from the anal margin. On the right side there were two, whose external orifices were two inches apart, and an inch and a half from the margin of the bowel. In operating I cut through the left side at right angles to the sphincter, and on the other side made a wedge-shaped incision, extending above the openings in bowel, including both fistulas. I expected to cut the sphincter on this side at a subsequent operation. Sixteen days later I etherized and found that I had succeeded in closing the internal openings on the right side. I had thus succeeded in one operation in curing the four fistulas with but one incision through the sphincter, nor can I see why it should be necessary to even cut the sphincter twice in any case.

On two occasions in the office I have used the rubber ligature for fistula in otherwise healthy people, with excellent results.

Dr. J. M. Baldy: I have been somewhat surprised at the small amount of space that Dr. Wharton has given to excision of fistulas and to the utter condemnation of that treatment by Dr. Morton. My experience has been so contrary to this that it may be of interest to mention it. In past times I have treated fistulas by cutting and packing, and I have seen a number of cases in which non-control of the sphincter continued for a long time. I then gave excision a trial, and I have never in a single instance regretted its use, nor have I had a single failure in the ten to fifteen cases in which I have employed it in the last two years. In simple fistulas I have slit open the fistula, and with curette, scissors, or thin-bladed knife, removed the indurated tissue, and then have placed sutures buried completely around the fistula: and have finally closed the mucous membrane, from the bowel, with catgut sutures. Where there have been multiple sinuses, I have cut out all partitions between the sinuses. In one case the opening was one-half to three-quarters of an inch in width. I rubbed in a strong antiseptic solution, obtained primary union, and a perfect result. I remember a case in Trenton on whom a perineal operation had been done by a friend. This was followed by an ischio-rectal abscess with an opening

into the rectum. The lady was also suffering from hemorrhoids. I laid the fistula open, exposing a cavity that looked most formidable. The slit in the bowel was probably two inches long. I curetted the cavity, rubbed in a strong bichloride solution, taking one-half to three-quarters of an hour, closed the wound with sutures, which did not go within half an inch of the bottom, whipped the bowel together with catgut, and closed it without drainage, at the same time removing four hemorrhoids. Ten days later, I removed the sutures, and in another ten days the patient was up and about, and the opening closed.

As I have said, in none of the cases operated on have I had cause to regret excision, and I should prefer it to all other methods where it was possible to introduce sutures, and nearly, if not fully, bury them all the way round.

In all my bowel operations I keep the bowels open from the first, and after the first passage the patients do not have much trouble. They are more comfortable than if they are permitted to have semi-hard discharges passing over tender surfaces.

Dr. WHARTON: I am glad that Dr. Morton has called attention to the importance of using the bichloride solution so that none of it is retained in the rectum. I cannot say why it is that iodoform gauze is so exceptionally good a dressing in these cases, but it is certain that it does better than any other material. I also use powdered iodoform.

Practically, the second dressing is not a repacking. I simply pass a piece of gauze to the bottom of the wound and allow it to project between the edges. I have also used the method referred to by Dr. Morton without repacking.

I use the caustic potash in many cases, particularly where the walls of the sinus are very dense, but neglected to mention it in the paper.

In the chronic cases that have been operated on many times, I think that the great secret of treatment is thorough curetting and free drainage. If the sinus can close so that pus can accumulate, the patient suffers. If the drainage is free, the patient is more comfortable.

In regard to double fistula, I spoke of this under the head of horse-shoe fistula, and recommended one division of the sphincter at a time.

Dr. Baldy's results have been very satisfactory. I have, myself, not had a very extensive experience with excision. I meet with many cases in which the operation could not be satisfactorily accomplished, and in these I prefer incision.

If the bowels are moved promptly after the operation, it is apt to disarrange the packing, and sometimes the first packing is important in controlling hemorrhage from the wound.

WHEN a boy really likes to go to church he should be taken to the doctor; there is something wrong with him.—*St. Louis Medical Review.*

Translation.

ON SOME OF THE DOUBLE SALTS OF QUININE, AND ESPECIALLY ON THE HYDROCHLORO-SULPHATE OF QUININE.

I. The Chemistry of Hydrochloro-Sulphate of Quinine. By Mons. E. Grimaux.

In a preceding note I sought to establish that in the basic salts of quinine the acid is united, not to the nitrogen of the quinoleic group, but to the azote of the other group, probably of a piperidinic nature.

It seemed to me, in consequence, that the nitrogen of the quinoleic group might also be made to unite under the influence of an acid, and thus form double salts of quinine, with two different acids; salts which, hitherto, had not been prepared. The trials undertaken on this line permitted me to obtain the hydrochloro-sulphate and the hydriodo-sulphate, as also the corresponding phosphates.

The hydrochloro-sulphate is, in fact, a definite chemical compound and not a mere mixture. When left to itself in dry air, or when its crystaline crust is separated from the mother-waters, and dried on porcelain at 100° of heat, it gives on analysis the same figure as does the total mass.

The hydrochloro-sulphate of quinine is very soluble in water; at 25°, one part of the anhydrous salt dissolves in 1.16 parts of water. It contains 74.2 per cent. of quinine; the medical sulphate ($7H_2O$) contains 74.3 per cent. of quinine.

The hydrated salt fuse, at 125°, resolving into an amber-colored liquid, which forms, on cooling, a gummy mass, Anhydrous, it turns brown in melting, and its fusing point varies indefinitely between 165° and 170°.

If we dissolve the basic sulphate of quinine by means of one-half the quantity of hydrochloric acid, we find that solution can be obtained only by the aid of heat to ebullition, and the use of five parts of water. On cooling, a certain quantity of basic sulphate is separated and the liquor retains hydrochloro-sulphate. The salt, to a single molecule of hydrochloro acid, does not appear to exist here, or, in its solution at least, decomposes into basic sulphate and hydrochloro-sulphate.

Following this report, Mr. E. Grimaux communicated to the Société de Biologié (at the meeting of October 20th, last), the data upon the same subject which we brought together in the last number (44) of the *Tribune Medicale*, page 699.

Professor Laborde took occasion to forward to the same society a report, as follows, of the results which he had obtained in his examination of the physiological action of the new quinine salt.

Mons. E. Grimaux first communicated the following to the French Institute:

II. Physiological Action of Hydrochloro-Sulphate of Quinine. By Mons. Laborde.

The tests I have made, said Mons. Laborde, upon animals, of this new salt of quinine, prepared by Mons. Grimaux, have exactly reproduced the symptomatic picture of the physiological and toxic action of quinine.

Characteristic, bilateral agitation of the head, in the guinea-pig; incoördination; motor ataxia; analgesia, localized at first at the point of injection, and afterward becoming generalized; then, at a more advanced stage of the toxic influence, exhilaration and quinic stupor, and, if the dose reaches a toxic total, the phenomena and the processes of terminal asphyxia.

The doses through which these effects were induced, varied, in our experiments, from ten to twenty centigrammes, given in hypodermic injections to guinea-pigs having an average weight of 400 grammes. Even with doses of from two and a half to five centigrammes, we obtained the characteristic phenomena of agitation, incoördination, or quinic intoxication.

But the point in which the new salt is especially distinguished from its simple congeners, notably the sulphate and the hydrochlorate of quinine, lies in the fact of its more rapid absorption, in consequence of which its effects are sensibly more prompt. This is probably due, other qualities being equal, to the much easier and greater solubility of the hydrochloro-sulphate of quinine, as compared with that of the single salts of that base.

From this point of view, the hydrochloro-sulphate of quinine must be regarded as a precious medicament for hypodermic employment, and it is a product, by the way, whose subcutaneous use gives rise to no appreciable, local irritation.

The hydrochloro-sulphate of quinine seems to me to be called to render veritable services to therapeutics.—*La Tribune Médicale*, November 10, 1892.

Progress in Medical Science.

OPHTHALMOLOGY.

By ALVIN A. HUBBELL, M. D.,
Professor of Ophthalmology in the Medical Department of Niagara University, etc.

A NEW METHOD OF OPERATING IN PTOSIS.

Birnbacher (*Centralblatt f. Prak. Augenheilkunde*, May, 1892,) operates for ptosis in such a manner as to do the least possible injury to the skin, and, at the same time, bring about the occipito-frontalis muscle to act upon the tarsal cartilage directly by connective tissue bands passing from one to the other, so that the lid is raised without any rolling outwards or ectropion. He makes an incision through the skin along the whole length of the lid corresponding to the upper edge of the tarsal cartilage, which is then cleared and pierced by three double-needled, stout silk threads ; the middle one of these threads lies at the highest convexity of the tarsus, and the others at a distance of seven mm. from it to the right and left. The loops of thread are not knotted ; both ends of the middle stitch are carried vertically upward under the skin and emerge close together in the eyebrow, and the other stitches are treated similarly, but they are caused to incline somewhat away from the vertical, so that the points of emergence of the three are farther apart than the points of entrance. The three stitches are then tied over three iodoform pads, the guide as to the degree of tightness to which the stitches are drawn being that, on closure of the eyes, the upper and under lids can still touch. The skin wound is then closed with five fine silk threads. By this method, with the minimum of damage to the skin (for the points of emergence are hidden in the hair of the eyebrow), one obtains several short cicatricial bands, which have little tendency to stretch, uniting tarsus and frontalis muscle.

The threads are left in, under an antiseptic dressing, for twenty to twenty-five days, after which time one can feel quite distinctly the new bands referred to.— *Ophthalmic Review*, July, 1892.

ACCIDENTAL VACCINIA OF THE EYELIDS.

Mr. Latham Thompson, of Cardiff, at the July, 1892, meeting of the Ophthalmological Society of the United Kingdom, communicated notes of a case of a man, aged thirty-eight, whose left eye-

lids had become accidently inoculated. The lids were edematous and painful, and at the outer canthus the edges were involved in a purulent ulcer with indurated margins. There was great tenderness of the affected parts, and painful enlargement of the glands at the angle of the jaw and down the sterno-mastoid. The man's child had been vaccinated a short time previously, and his wife had been accidently inoculated therefrom. The man had suffered from slight marginal blepharitis, with excoriation at the outer canthus, and the inoculation had probably occurred at that point.

EXPERIMENT BEARING UPON SYMPATHETIC OPHTHALMIA, WITH A CRITICAL REVIEW OF THE SUBJECT.

Dr. Randolph, of Baltimore, (*Archives of Ophthalmology*, July, 1892,) reports a very interesting case and experiment:

J. M., 41 years old, was injured in his sight, June 1, 1891. In about seven weeks afterward, the left eye, whose vision had been unusually acute, began to show signs of sympathy, viz., photophobia, lacrymation, and vision so impaired that he "could not see a horse a hundred yards away." August 13th, following the injury, vision of sympathizing eye equaled 10-200, that of the injured eye nothing. The injured eye was enucleated and endeavors made to grow experiment cultures from it on agar and in Esmarch tubes, material being taken from the anterior and posterior chambers. After proper methods and ten days' time, "not a sign of growth showed itself" on the culture media. Prof. Welch, Dr. Flexner, and Dr. Randolph examined specimens from the vitreous and anterior chamber of the enucleated eye, with the microscope, but discovered no organisms. Inoculation experiments were practised upon a rabbit's eye, but without inducing any symptoms of sympathetic ophthalmia in the animal. In short, the investigation was negative in its results throughout.

The author then reviews the experiments of Deutschmann and the theory of the pathogenesis of sympathetic ophthalmia which the latter has put forward. Gifford, of Omaha, Mazza, of Genoa, Leimbourg and Levy, of Strassburg, and Ohlmann and others, together with himself, have each failed to confirm Deutschmann's results. He, therefore, concludes that "it seems unreasonable to look upon the infection theory, as demonstrated by the experiments of Deutschmann, as anything, yet awhile, but an idea." It seems to him that his experiment in the laboratory, here referred to, is a most valuable test of the question, as to what *rôle* bacteria play in the production of the disease. Here is an undoubted case

of sympathetic ophthalmia, and if bacteria in the injured eye gave rise to the sympathetic trouble, it is reasonable to suppose that the means to discover them would have been successful, and the experiment on the rabbit would, at least, have suggested something which might be regarded as positive evidence.

PTERYGIUM.

E. Fuchs, of Vienna, (*Von Graefe's Arch. f. Oph.*, Vol. XXXVIII., Part II.,) publishes the results of his studies of pterygium, and declares that it is but a further development of pinguicula. After disposing of certain erroneous observations, and the theories that have been founded upon them and become current in the literature of the subject, he presents his own views, founded upon minute investigations, for which very ample material was at his disposal, together with careful and detailed clinical and histological descriptions. He concludes that a pterygium is a development of a pinguicula. The pinguicula, which ordinarily does not touch the limbus, gradually invades it and advances over it on to the cornea, causing a thickening at the limbus, which subsides somewhat steeply towards the cornea, and has a convex margin. In accordance with this mode of origin, the situation proper to pterygium corresponds with that of pinguicula, viz., the inner or the outer side of the ball, most frequently the inner, and somewhat below rather than above the horizontal meridian. The two disorders also belong to the same period of life. As the pinguicula continues to grow on the cornea, it loses its original characters, the yellow nodules disappearing and the advanced margin assuming a greyish, brawny look. Some parts of this margin advance more rapidly than others, giving a jagged or sinuous appearance. It is very intimately attached to the subjacent cornea, destroying, at this place, Bowman's membrane, and loosening the epithelium in advance of the margin. The adhesion of the pterygium to the corneal tissue varies considerably. Sometimes it penetrates the superficial layers in the form of loose, vascular, connective tissue, at other times it consists of a firm, hard tissue, adhering superficially to the undamaged Bowman's membrane. The former seems to indicate the progressive, the latter the stationary stage of the growth. Clinically, in the former, the margin is thick and brawny, with steep edge toward the cornea, while in the latter it is thin, tendon-like, and hardly raised above the level of the cornea.

It is evident that a pterygium is something more than a simple extension of a pinguicula, and its structure, moreover, does not resemble that of a pinguicula. It would appear that a pinguicula, near to the corneal margin, in some way modifies the lymph which here flows into the cornea, and thereby interferes with corneal nutrition at this point, and leads to a progressive destruction of Bowman's membrane and the subjacent layers of corneal substance. At the same time, a proliferation of connective tissue seems to be excited, so that while the destructive process proceeds around the apex of the growth, cicatrization follows behind it. As the growth of the pterygium proceeds, the characters which belong to the pinguicula disappear, gradually, and ultimately, when the pterygium has reached a considerable size, the destructive action upon the corneal tissue appears to be exhausted, the progress is arrested, and a certain amount of atrophy of the new tissue takes place.

Fuchs puts forward this hypothesis as one which needs support by further investigation, especially by the histological examination of pterygia in their early stages.

Professional Homes are a real necessity according to the *Medical Age*, which says: The members of the medical profession in every city of 100,000 people should have their own home. They may be only able to rent a humble dwelling for such a purpose, but by all means rent until able to own, and there have a library, a reading and common sitting-room, a dining-room, and a kitchen. A fraternal spirit and union of hearts will there be knit together. Professional homes are promoters of peace and good-will, and from them is sure to spring the benevolent sentiment that encourages the strong to care for and not step aside to crush out the life of the weak and, perhaps, unfortunate. In the cultivation of this spirit and sentiment, strong men are made stronger, and their lives more lovable. Their angular points are smoothed down until they are so polished as to on all occasions reflect the nobleness of soul that is within them, while the weak, but deserving, are held up and encouraged in practical ways.—*St. Louis Medical Review.*

The Medical and Surgical Observer is the name of a new monthly magazine, published at Jackson, Tenn., and edited by Dr. Vandahurst Lynk.

BUFFALO MEDICAL AND SURGICAL JOURNAL
A MONTHLY REVIEW OF MEDICINE AND SURGERY.

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THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.
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SOCIETY MEETINGS AND TRANSACTIONS FOR 1892.

AS THE years advance, there is a constantly increasing improvement in medical society work, and in the publication of the transactions of the several medical societies that issue annual volumes. This applies to local, State, and National organizations almost without exception, and is particularly instanced in the excellent work done in the year 1892. The several volumes of transactions that have already appeared give abundant evidence of the quality as well as quantity thereof, and we have no doubt that those yet to appear will fully maintain, if not excel, the standards of the same societies for previous years. This is as it should be, for in reality these society meetings, especially those of the State and National organizations, are post-graduate courses to which general practitioners as well as specialists may go and learn. There is a constant increase in the attendance of these societies, and we regard this fact as one of the most healthful signs of a tendency toward a higher order of medical education. Many physicians cannot spare the time to be absent from six to twelve weeks during the year to attend one of the great metropolitan post-graduate schools, but all may and should spare three days now and three days again in attending two or three society meetings during the year. To attend such meetings will serve to keep them in touch with the progress of medicine, and to burnish up such rusty links in the chain of professional brotherhood as need repolishing.

Most of the National special societies issue general invitations to the profession at large to attend their meetings, and we regard it important for every physician who resides within a reasonable distance from the place appointed for any such meeting, to attend it as regularly and as studiously as though he were a member. The object of these meetings is not alone for the benefit of the

men who belong to the societies, but to improve the whole profession, as far as they may be able to contribute to that desirable end. There is no more valuable literature than the annual transactions of most of the special societies and some of the State organizations. Too little attention is paid to the purchase of these volumes by the profession, and too much money is expended on books that do not contain anything like the amount of valuable information. It is all very well for some authors of papers to make haste to publish them in the weekly or monthly magazines soon after reading them in one of these societies, but, as a matter of fact, the experienced writer and society debater relies on the annual volumes of transactions of the societies in which he is interested, where all the papers and discussions are grouped together, and are readily and conveniently accessible whenever he wishes to refer to them. The fact is, that medical journals are rendering their columns less and less interesting by the publication of syndicate papers that are read at societies, for one soon gets tired of seeing Dr. Blank's article published in eight or ten journals coming to his table during a single month.

But, we are now getting beyond the purpose that furnished the inspiration of this article, and will reserve for another time what we may have to say on the journalistic side of the question. For the present, we are content to call attention to the good work, for the most part, done by American societies, National, State, and local, for the year 1892, and to bespeak from the young men of the profession a careful examination of the literature that has emanated from these several bodies. Furthermore, we predict that they may look forward to 1893 for even further and greater gain in respect to quality of the society work done, and of the admirable way in which it will be published in the several transactions. When a society does not properly report and publish its work, its chief influence falls to the ground. No society can maintain a proper *esprit de corps* that does not furnish *verbatim* reports of its proceedings, which must include the papers read and the discussions that follow them. Most of the National societies do this work admirably, and some of the State societies are following closely their example. Only a few of the local societies, however, have thus far succeeded in accomplishing near what ought to be done in this direction, and of these we may name the New York Academy of Medicine and the Philadelphia County Medical Society as models. The papers read and discussions held in these societies are reported in full and

furnished the periodicals for publication, in a properly edited manner, making them available to the professional world. They are then preserved in book form by the societies for future reference. This involves the employment of a careful secretary and providing compensation for him, *but it pays.*

TOPICS OF THE MONTH.

The Pan-American Medical Congress, which will be held in Washington, September 5, 6, 7, and 8, 1893, embraces in its organization the names of the following Buffalo physicians:

Dr. John Cronyn, member of the National Committee on Organization; Dr. A. A. Hubbell, member of the Auxiliary Committee; Dr. Matthew D. Mann, Honorary President Section on Obstetrics; Dr. Henry R. Hopkins, Honorary President Section on Hygiene, Climatology, and Demography; Dr. Charles Cary, Honorary President Section on Therapeutics; Dr. Roswell Park, Honorary President Section on Orthopedic Surgery; Dr. William H. Heath, Assistant Secretary-General; Dr. John Parmenter, Honorary President Section on Medical Pedagogics; and Dr. William Warren Potter, Executive President Section on Gynecology and Abdominal Surgery.

We called attention to the fact, in the last number of the Journal, that it is important, in view of the large expense incurred in organizing the Congress, for every one who proposes to become a member, or who desires to receive the benefit of its publications, to register promptly, by sending the fee of $10 to Dr. A. M. Owen, Treasurer, Evansville, Ind. A further important question is that of securing an appropriation from Congress to defray the expenses of entertaining the visitors and to meet the necessary expenses incidental to the sessions. It is essential that members of the Senate and House of Representatives be made familiar with the objects and purposes of this Medical Congress, and that their intelligent support of its purposes be secured. A personal appeal to each member by his medical friends would go far towards accomplishing the desired end.

The Buffalo Department of Health has issued a circular, calling attention to the numerous instances of failure to comply with the laws relating to the registration of births. This must be done within three days by every physician and midwife who attends a

case of labor. A neglect of this important duty impairs the usefulness of the Records of Vital Statistics. Hence, the Health Commissioner calls upon every physician for a report of all births of which he has been officially cognizant during the year 1892, that have not been heretofore reported.

Dr. Ernest Wende, Health Commissioner, has issued a circular-letter to physicians relating to the exclusion of contagious diseases from the various schools, in which he says, that in reporting cases of contagious diseases among children, every physician "*must state additionally the number of children in the household and the particular school or schools they may attend.*" It is incumbent upon every physician to make the laws efficient by giving cheerful aid to the Department of Health, and we presume this order of the Health Commissioner will be faithfully and literally obeyed.

The American Pharmaceutical Association, through its committee on membership, is anxious to present at a meeting to be held in Chicago, in August, 1893, a long list of names of reputable pharmacists in the United States and Canada. In order to accomplish this purpose, blank applications and full information regarding fees and the benefits of becoming a member of this association, will be furnished by Dr. H. M. Whelpley, 2343 Albion place, St. Louis, Mo., who is the Chairman of Committee on Membership. We hope the pharmacists residing in Buffalo and vicinity will avail themselves of this privilege. Nothing is more conducive to improve a methods than membership in the several local, state, and national societies, and we hope the *esprit de corps* of the pharmacists of Buffalo will be kept at a high standard.

The *United States Investor* announces that it will begin on Saturday, January 7, 1893, the publication of its prize essays upon American Cities and Towns. It will be remembered that in a recent number of the Journal we called attention to the fact that the *Investor* offers $1,000 in prizes for essays not more than one column each, one column to consist, approximately, of 1,000 words. The towns and cities from which essays have already been received number 120, and in the list we notice that Buffalo is represented. These essays will be received until December 31, 1892, when they will be placed in the hands of the judges, who will render their

decisions and award the prizes to the successful competitors. All essays that are intended for competition should be marked as such and forwarded to either of the offices of the *United States Investor*, 185 Franklin street, corner Pearl, Boston, Mass.; 335 Broadway, New York; or 241 Chestnut street, Philadelphia, Pa.

The Southern Pines Resort Company, of North Carolina, announces that the Sand Hills, which is the highest place in the long-leaf pine region, is a most important health resort for those suffering with throat and lung troubles. A number of Northern physicians have been investigating, and recommend it in the highest terms, and several who stand high in the profession have built fine residences at Southern Pines. The place is rapidly increasing in population, and is recorded as the most beautiful location on the line of the Raleigh & Augusta railroad. It now contains about seventy-five fine houses, among which are four hotels, and there is a demand for more cottages. These can be rapidly erected at a very small cost, on account of the cheapness of lumber and labor. For further information, address Hon. John T. Patrick, resident manager, Southern Pines, N. C.

The question of good roads is always an interesting one to physicians, and any considerate move or well-arranged plan looking towards the improvement of highways in the State of New York will receive their cordial support. Col. Albert A. Pope, of Boston, is an enthusiast on this subject, and is also a man of practical ideas relating to it. His proposition is to petition the two houses of Congress to found, in Washington, a Road Department, similar to the Agricultural Department, for the purpose of promoting knowledge in the establishment of or constructing and maintaining roads, with the further suggestion that provision be made in it for teaching students, so that they may become skilled road engineers. It is also proposed that there be established a permanent exhibit, in which shall be shown sections of roads illustrating various methods of construction, and also the best road materials, and machinery. We feel sure that every physician who receives a copy of this petition will gladly sign it, and we hope that it will prove of much service in the direction named. Copies of the petition will be sent to any person interested in the subject by Col. Pope, whose address is P. O. Box "B," Boston, Mass.

The State Commission in Lunacy has issued a circular, under date of December 10, 1892, calling attention to the importance of the clinical teaching of insanity in public hospitals for the insane. The circular quotes the resolutions adopted by the Association of Medical Superintendents in American Institutions for the Insane, at its annual meeting, held at Toronto, Canada, in 1871, that, in substance, advise the teaching of insanity in the medical schools by the ordinary plan of didactic lectures, and that this didactic teaching should be supported by clinical instruction, whenever practicable. There is no doubt, as the circular states, that citizens of the State, of all classes, cannot fail to derive benefit from the diffusion of a more practical knowledge of insanity among the medical profession. We are pleased to note this commendable attempt on the part of the State Lunacy Commission to improve the methods of teaching questions relating to this singular and important disease. The large number of patients in the public hospitals for the insane, suited to the clinical teaching of insanity, ought to render it a comparatively easy matter to carry out the main purposes of the Commission in issuing this circular. This will apply to medical colleges located in large centers, and especially where there are State hospitals for the insane, but we do not see how individual physicians, who may desire to avail themselves of the privilege, can expect to derive much benefit from "such facilities for the clinical study of mental diseases as in the judgment of the medical superintendent may be deemed wise and proper."

Personal.

Dr. W. S. Renner, of Buffalo, sailed for Europe by the Red Star Line, on Wednesday, December 21, 1892. He was accompanied by Mrs. Renner, and will remain abroad for three months, during which time he will attend the important clinics in Great Britain and on the Continent.

Dr. G. E. de Schweinitz has been elected Clinical Professor of Ophthalmology in the Jefferson Medical College, Philadelphia. This election is a substantial promotion for Dr. de Schweinitz, who was Professor of Ophthalmology in the Polyclinic, and Lecturer on Medical Ophthalmoscopy in the University of Pennsylvania.

Dr. Richard Douglas, of Nashville, Tenn., was elected President of the Tri-States (Ala., Ga., and Tenn.,) Medical Society, at its meeting held in Chattanooga, in November, 1892.

Society Meetings.

The Medical Society of the County of Erie will hold its annual meeting on Tuesday, January 10, 1893, in the Y. M. C. A. building, corner West Mohawk, Pearl, and West Genesee streets, beginning at ten o'clock A. M.

The following programme is offered for the entertainment of the society :

I. Discussion of Hydatid Disease :

Pathology. By Dr. Roswell Park.

Symptomatology and Diagnosis. By Dr. J. H. Pryor.

Surgery. By Dr. Herman Mynter.

II. The Relation of Gonorrhea to Pelvic Diseases in Women. By Drs. M. D. Mann, C. C. Frederick, and M. A. Crockett.

The sixth annual meeting of the National Association of Railway Surgeons, embracing the United States, Canada, and Mexico, will be held at Omaha, Neb., the last Wednesday, Thursday, and Friday of May, 1893. A preliminary announcement has been issued, which embraces thirteen different titles besides one general subject for discussion, namely, Injuries of the Cord and its Envelopes without Fracture of the Spine. Dr. C. W. P. Brock, of Richmond, Va., is President, and Dr. E. R. Lewis, of Kansas City, Mo., is Secretary.

The Medical Society of the State of New York will hold its eighty-seventh annual meeting in the City Hall, at Albany, on Tuesday, Wednesday, and Thursday, February 7, 8, and 9, 1893. All members of the profession are cordially invited to attend.

Obituary.

Dr. A. Reeves Jackson died at his home in Chicago, November 12, 1892. He was Professor of Gynecology in the Chicago College of Physicians and Surgeons, and was one of the best known

gynecologists in the West. Dr. Jackson's personal magnetism and genial disposition won him a large group of friends, both within and without the ranks of the profession, and it will not be easy to fill the social and professional place that is so sadly vacated.

THE positions of House Physician and assistant, at the Buffalo City Hospital, will be vacant March 1, 1893. All graduates in medicine desiring to compete for these positions may obtain information by addressing Dr. John Pryor, President, or Dr. Wm. C. Krauss, Secretary of the staff.

Book Reviews.

SURGICAL DISEASES OF THE OVARIES AND FALLOPIAN TUBES, INCLUDING TUBAL PREGNANCY. By J. BLAND SUTTON, F. R. C. S., Assistant Surgeon to the Middlesex Hospital, London; late Hunterian Professor, Royal College of Surgeons, of England. In one 12mo volume of 514 pages, with 119 engravings and five colored plates. Cloth, $3.00. Philadelphia: Lea Brothers & Co. 1892.

Those who are acquainted with the literature of gynecology, and especially with the work Mr. Sutton has done, will not be surprised to learn that his latest book is one of the best on the subject with which it deals. There is, perhaps, as much mystery connected with the function of the ovary, and especially with its reproductive agency, as with any other organ in the human body. Its functions in health are attuned on a most delicate scale, and its peculiarities in disease are marvelously intricate and manifold.

Of all the diseases to which the ovary is liable, perhaps there is not one more curious or of greater interest to the majority of physicians than dermoid cysts. The contents of these cysts are so variable and their origin so obscure, that it furnishes an interesting field for the pathologist in which to exercise his knowledge and skill. Mr. Sutton has given a succinct account of these curious tumors, but we are unable therein to discover any new light on the subject. Solid tumors of the ovary are dealt with interestingly and instructively; so, too, are ovarian tumors in infancy and childhood.

The part on ovarian cysts and ovarian hydrocele furnishes an interesting study, but one of the most absorbing subjects is the coëxistence of ovarian cysts and pregnancy. Formerly it was

thought unadvisable to meddle with cystic tumors of the ovary during pregnancy, and the law was to deal with the pregnancy itself when it advanced to a point of danger, rather than with the tumor. Under the improved methods of the present day, together with the knowledge of the fact that the ovary itself does not influence the progression of pregnancy, abdominal surgeons hesitate not to remove even both ovaries during the early months of pregnancy, with the absolute expectation that the mother will go to term, and be delivered of a living child. A sufficient number of double ovariotomies have been performed during pregnancy, where all these conditions have been obtained, to justify this as the only rational procedure.

Part III. of Mr. Sutton's excellent book is taken up with the subject of Tubal Pregnancy. Here, again, is a most interesting field for physiological research. The surgical questions relating to this disease are as nearly settled as they can be for the present, and mainly resolve themselves into the fact that, as soon as a diagnosis of tubal pregnancy can presumptively be made, an abdominal section is required for the safety of the patient It is no longer a question of delay or tentative measures; electricity itself has ceased to be thought of in connection with these cases, and injections of lethal agents into the sac has failed to command any further attention in society debates or journalistic articles. At a recent meeting of one of the foremost National special societies, the subject of electricity in connection with ectopic pregnancy did not enter into the debate at all. So we feel justified in saying that upon a presumptive diagnosis of tubal pregnancy the patient should be advised to submit to an abdominal section at once. Delays, always dangerous in critical conditions, are doubly so here; for a woman with this direful malady may not know at what moment her life will be swung over the abyssmal chasm of death, and held by so slight a thread that one single error of action may prove fatal. This subject has been so thoroughly discussed in the JOURNAL within the last two or three years, that we do not feel called upon to express anew our opinions on its pathological points, but we desire to reaffirm at this time those we have heretofore set forth.

The final section of Mr. Sutton's book deals with methods of performing operations for ovarian and tubal diseases. They are mainly those understood and carried out by the principal abdominal and pelvic surgeons, both in this country and in Europe. We are

impressed with the straightforwardness of Mr. Sutton's style, and with its conciseness, as well as, in some instances, his original method of dealing with the various branches of his subject. His book will easily become adopted as a standard in the medical schools, and will serve to aid in the delineation to students of the intricate and absorbing subjects with which it deals. No specialist can consider his library at all complete unless this book is found on its shelves, and many other physicians interested in the subjects on which it treats will make haste to possess it.

A future edition, that, no doubt, will soon be demanded, will probably present the subjects on a much larger scale and with more elaborate illustrations.

TUBERCULOSIS OF BONES AND JOINTS. By N. SENN, M. D., Ph. D., Professor of Practice of Surgery in Rush Medical College; Professor of Surgery in the Chicago Polyclinic; Attending Surgeon Presbyterian Hospital; Surgeon-in-Chief St. Joseph's Hospital; President of the American Surgical Association; President of the Association of Military Surgeons of the National Guard of the United States; Permanent Member of the German Congress of Surgeons, etc. Illustrated with 107 engravings (seven of them colored). In one handsome royal octavo volume. 520 pages. Extra cloth, $4.00 net; sheep, $5.00 net; half-Russia, $5.00 net. Philadelphia: The F. A. Davis Co., Publishers, 1231 Filbert street.

This book treats of a science that has only lately developed into knowledge. The author, in his first chapter, truthfully asserts that no department in medicine or surgery has witnessed a more radical change than the etiology of tuberculosis of the bones and joints. When we recall the fact, as also stated by the author, that the first anatomical demonstration of the identity of the process of synovial membrane in some cases of tumor albus, with tubercular lesions of the lungs, was furnished by Rokitansky in 1844, and that it was not until 1869 that Koster furnished convincing proof that miliary tubercle can be found in every fungus joint, we can appreciate what a modern science Senn has set forth in this work.

Taken all in all, there is no more fascinating surgical question than that relating to diseases of the bones and joints. Bone surgery is a most tempting field for the surgeon, for one particular reason perhaps, namely, that he is able to demonstrate the science of diagnosis and his own operative skill with more precision and perfection than can be done in any other branch of surgical art. When a surgeon reaches forth his strong arm and rescues a little cripple, he does something to benefit humanity, and deserves its grateful thanks.

Probably few men, if any, are more competent to discourse upon this subject than Senn, and, surely, no one has yet undertaken to prepare a treatise that in any manner rivals the one before us. A correct diagnosis lays the foundation for successful treatment, and this aphorism is found nowhere to fit more snugly than in relation to bone and joint disease. Until the nature of the disease is understood, nothing can make progress in the way of successful management. The tubercular nature of chronic diseases of bones is not as universally admitted as it ought to be, and this book of Senn's will do much towards enlightening the professional world on the subject. While it is true that most surgical teachers and operators of experience understand this fact, namely, the tubercular origin of most chronic affections of bones and joints, yet they rarely see the cases first ; hence, it is necessary that the general practitioner, who resides in country, town, village, or hamlet, should become familiar with the subject.

This book is well printed in clear type, and has some illustrations that are excellent, but we think the author might have made his book more serviceable to the general practitioner if he had paid more attention to the pictorial side of the question. This is a subject capable of being well illustrated by handsome photographic reproductions of cases and specimens. But, of course, such illustrations require time and money. One of the difficulties of the present is, that the men most competent to write books have the least time to give to their elaborate illustration. We hope that Senn will publish, within a reasonably short time, a new edition of this book, amply and adequately illustrated, on the lines that we have indicated.

International Pocket Visiting List. Sixty patients each week. 1893. Arranged for the use of practitioners. By J. C. Wilson. M. D., Physician to the German Hospital, etc., etc. Philadelphia : J. B. Lippincott Company.

This new candidate for professional favor is arranged by a practical physician, and possesses all the advantages which experience and application can give to such a useful business pocket-book. It is handsomely bound in black, and its paper is of the finest quality. It is manifestly an easy contestant for the front rank, even among the old and favorite visiting lists that have been many years on the market. We commend it to the favor of such physicians as have not already supplied themselves with this indispensable help to simplify their daily practice records.

INTERNATIONAL CLINICS. A Quarterly of Clinical Lectures on Medicine, Surgery, Gynecology, Pediatrics, Neurology, Dermatology, Laryngology, Ophthalmology, and Otology. By professors and lecturers in the leading medical colleges of the United States, Great Britain, and Canada. Edited by JOHN M. KEATING, M. D., Philadelphia, Consulting Physician for Diseases of Women to St. Agnes' Hospital, Philadelphia; editor Cyclopedia of the Diseases of Children.—J. P. Crozer Griffith, M. D., Philadelphia, Clinical Professor of Diseases of Children in the University of Pennsylvania; Professor of Clinical Medicine in the Philadelphia Polyclinic.—J. Mitchell Bruce, M. D., F. R. C. P., London, England, Physician and Lecturer on Therapeutics at the Charing Cross Hospital.—David W. Finlay, M. D., F. R. C. P., Aberdeen, Scotland, Professor of the Practice of Medicine in the University of Aberdeen; Physician to and Lecturer on Clinical Medicine in the Aberdeen Royal Infirmary; Consulting Physician to the Royal Hospital for Diseases of the Chest, London. January, 1892. Philadelphia: J. B. Lippincott Company. 1892.

The preface to the fourth volume of this periodical consists of a memorial of Charles Theodore Parkes, M. D., of Chicago. Dr. Parkes was a distinguished surgeon and one of the strong characters in the country, but we are at a loss to know why a volume of clinical lectures, by authors residing in various countries, should be especially chosen for the publication of this memoir. Its fit place would seem to be in the Transactions of the American Surgical Association.

We find, in this volume, the usual subjects of interest that have pervaded its predecessors. They are pretty well divided between the several departments, and will command attention according to the various preferences and desires of readers. Dr. Charles G. Stockton, of Buffalo, has a short lecture entitled, Diseases of the Pancreas; Carcinoma of the Pancreas, Kidneys, and Liver. These are all important subjects, and Dr. Stockton is most competent to deal with them, but we think five pages is rather too narrow a space in which to treat of such large subjects. However, we presume future lectures will be added in the series, which will further serve to complete the subject.

Dr. Joseph M. Mathews, of Louisville, speaks interestingly of Fistula-in-ano, but we think he is putting it too strongly when he says that he knows "no dressing in surgery that can compare with iodoform for freshly made wounds." Our observation is that iodoform has a better place in granulating and sluggish wounded surfaces than in fresh incisions. If these clinics were illustrated more completely, it would add very much to their interest. They are handsomely printed on excellent book paper, and deserve to be more

fully illustrated. The fact is, we presume, that most of these lectures are obtained under great difficulties. The haste in which they are prepared, and other embarrassments that stand in the way of the publishers in obtaining them, make it difficult to present with that degree of perfection which is desirable. We would suggest, however, that more pains be taken to obtain good and complete illustrations from those clinicians who will take interest in preparing and illustrating their lectures, and less endeavor be made to cover such a wide extent of territory or subjects.

TEXT-BOOK OF THE ERUPTIVE AND CONTINUED FEVERS. By JOHN WILLIAM MOORE, B. A., M. D., M. Ch., University of Dublin; Fellow and Registrar of the Royal College of Physicians of Ireland; Physician to the Meath Hospital, Dublin; Joint Professor of Practice of Medicine in the Schools of Surgery of the Royal College of Surgeons of Ireland; Consulting Physician to the Cork-street Fever Hospital, Dublin, and to the Whitworth Hospital, Drumcondra; Ex-Scholar and Diplomat in State Medicine of Trinity College, Dublin. William Wood & Co., Medical Publishers, New York. 1892.

It is interesting to know that the study of fevers is taking strong hold upon the profession of medicine. Instead of being obliged to look through the voluminous pages of a treatise on practice, as was formerly the case, we now can readily refer to monographs on the subject that give it more satisfactory exposition. Murchison, Hilton, Fagge, and Alexander Collic, have all written admirably upon this subject, but Moore says, with great force and truthfulness, that notwithstanding all these men have written, full justice has not up to the present been done to this important and fascinating theme. He further states, and we quote this time *verbatim*: "While I cannot pretend to have adequately supplied an admitted want in medical literature—namely, a reliable and comprehensive text-book of the eruptive fevers, yet I have endeavored to focus in these pages the most recent views on the etiology, bacteriology, symptoms, pathology, and treatment of this group of maladies." This seems to be the sum and substance of the whole matter. In a work of such vast comprehensiveness, there need be no doubt in the minds of anyone that the subject is amply and exhaustively treated. An examination of even a few pages of the book would convince the most exacting critic that the work had been skilfully and thoroughly done.

The tendency to resort to antipyretics as routine practice in almost all conditions of exalted temperature is so strong, that

some will read with surprise the following which we quote at length :

The antipyretic remedies — as antipyrin (phenezone) — have no special action on the causes of fever. They lower the temperature by increased radiation of heat from the body, and they diminish heat production. They do harm by interrupting the course of the fever, diminishing the means of defense of the human organism, for a diminution in the production of heat is equivalent to a diminution in the vitality of the human organism and of its power of resistance. In excessive fever (hyperpyrexia), however, the cardiac muscles and the nervous system suffer, and under these circumstances a reduction of temperature is desirable, if, by abstraction of heat, heat production is not diminished.

The study of enteric or typhoid fever is, however, of the most absorbing interest, and this is shown by the fact that the last 150 pages of this book are devoted entirely to that subject. No more critical or exhaustive treatise on the subject can be found in the literature of medicine, and we do not believe that any physician engaged in active general practice can afford to deny himself the privilege of reading Moore's intelligent, modern, and exhaustive exposition of the subject.

A Text-Book of Morbid Histology for Students and Practitioners. By Rubert Boyce, M. B., M. R. C. S., Assistant Professor of Pathology in University College, London. With 130 colored illustrations. Octavo ; pp. xxiv.—477. New York : D. Appleton & Co., 1, 3, and 5 Bond street. 1892.

The study of pathology is constantly becoming more and more important, and more and more interesting as well ; its importance progressing as science advances, and its interest keeping pace with its importance. A number of excellent works have appeared within the last few years, that aim to set forth the essentials for the study of histology ; but, if any one has been published that equals in rank the one before us, we have not seen it. Mr. Boyce has been a student of Victor Horsley, and, very properly, follows the teachings of his master to a considerable extent. The introduction to the work, by Mr. Horsley, is a delightful tribute of master to pupil, and ought to be, as it no doubt is, treasured by Mr. Boyce as a most satisfactory endorsement of his work.

The book begins with practical directions for the study of histology and for the preparation of histological specimens. These are not very different, in the main, from the generally understood

methods. However, they will repay careful study. The outlines of Inflammation, Repair, Degeneration, and Neoplasm occupy the next nine chapters of the book, and this is one of the most important sections between its covers. We have been especially interested in Mr. Boyce's exposition of the Infective Processes (chapter seventh), which is a most intelligent setting forth of the subject within our present lines of knowledge. The study of the histology of tumors, and especially of cancers, is an absorbing one, and nowhere will be found more satisfaction in its pursuit than here. The outlines of the Diseases of the Special Systems begin with chapter eleventh and continue to the end of the book, leaving only bibliography and the indexes to follow.

This work will, no doubt, be adopted in the schools and laboratories as a principal text-book on the subject of morbid histology, hence deserves to be examined with a critical eye. We have attempted to do so, and the result is that we have only praise to bestow upon it. The illustrations are beautiful specimens of colored reproductions from micro-photographs, that have been carefully and minutely executed. They serve to explain the text with a greater definiteness than any pictures we have ever examined in a text-book. Many of them convey almost as accurate a knowledge of the subject as could be obtained by personal examination of specimens through the microscope.

It ought to be said, with reference to the printing, that it is unusually well done, on extra book paper, in large type, with double leads, so that it is easy reading for even tired eyes. Any student of histology who does not make haste to familiarize himself with Mr. Boyce's work, is not doing justice to himself or to the science which he is attempting to master.

A Physician's Complete Book of Records. Call List, Record of Visits, Cash Accounts, Ledger, Obstetrical Record, Death Record, and General Memoranda, all complete in one volume. Edited and compiled by Samuel E. Walker, Ph. G., M. D. Philadelphia: Keystone Publishing Co. 1892.

It has always been difficult for a physician to deal with the subject of book-keeping, unless he delegated it to an expert. This course will answer only for such physicians as are engaged in an extensive practice, with no time to spare for the details of accounts. Within the last few years a variety of devices has been put forth, whereby the process of keeping accounts with patrons has been simplified, or, at any rate, an attempt in that direction has been made. The

last candidate for favor is the work of Dr. Walker, which certainly possesses very many unique and apparently advantageous points, for which he claims superiority. We quote from his prospectus the following :

1. Every entry is an "original entry," and cannot be anything else ; therefore, meets all legal requirements in case of suit. 2. The name and address of each patient under treatment is under your eye each day ; no one can be overlooked. 3. Current charges for each day, for even a hundred visits can be entered in a very few minutes ; no fumbling over back pages ; your current work is all in one place before you. 4. No ledger is required ; each patient's account is complete, for each month, in one line ; there is no "posting" to be done. 5. From the nature of the method, each account must appear daily, exactly as it stands, and all in one place. 6. Accounts that are deemed "slow" or "doubtful," are conveniently grouped, so that they are constantly in sight, and, therefore, not forgotten and lost. 7. The time required for entering charges and credits will not exceed ten seconds a day for each patient under treatment. 8. No "cipher code" required. 9. Use may begin at anytime of the year, with no loss of space. 10. Each book contains space for 2,250 monthly accounts, each complete in one full line. 11. Complete double index, with space for addresses. 12. Arranged to record credits on any day of the year, as well as charges. 13. Absolute simplicity ; no explanation, whatever, is needed. 14. The ease and rapidity with which entries are made, *ensures their being made.* This point will be appreciated by the busy practitioner.

From an examination of the book, we are favorably impressed with it, and unhesitatingly recommend it to physicians who have not already supplied themselves with a simplified method of bookkeeping. The price of this book, $5.00, including shipping charges, brings it within the range of the most modest purse.

THE PHYSICIANS' VISITING LIST (Lindsay & Blakiston's) FOR 1893. Forty-second year of its publication. Philadelphia : P. Blakiston, Son & Co. (successors to Lindsay & Blakiston), 1012 Walnut street. Sold by all booksellers and druggists.

This old favorite puts in its annual appearance for the forty-second time, and is as welcome as ever. It possesses the advantage of being the most compact and one of the most useful visiting lists in the market. It takes up less space and, at the same time, answers the purpose quite as well as most of the others. Its strong morocco binding in black, and its good paper with gilt edges, give it a substantial and handsome dress. The price is still from $1.00 to $3.00, according to the size and edition wanted.

THE HYGIENE OF THE SICK-ROOM. A book for nurses and others, being a brief consideration of Asepsis, Antisepsis, Disinfection, Bacteriology, Immunity, Heating, and Ventilation, and kindred subjects, for the use of nurses and other intelligent women. By WILLIAM BUCKINGHAM CANFIELD, A. M., M. D., Lecturer on Clinical Medicine and Chief of Chest Clinic, University of Maryland; Visiting Physician to Bay View Hospital; Visiting Physician to the Union Protestant Infirmary, etc., Baltimore. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1892. Cloth; price, $1.50.

This little book is entitled by its author, "A Book for Nurses and *others*." The "others," in our opinion, should include all mothers and all medical students. After the introduction, which contains some valuable general advice to nurses, and tells why they should have a knowledge of the causes of contagion and the modes of infection, the work proper begins with a chapter on Bacteriology, which gives enough of the subject to impress the mind of the nurse or the mother with the great importance of the subject without fatiguing her with, to her, incomprehensible details.

The second chapter, on Infection and Disinfection, is the one that makes the book of value to the medical student. We know of no other book that treats this subject so briefly and yet so well. In the altogether too limited time that is devoted to medical education, the student cannot spare the amount necessary to carefully study a long treatise on these subjects, and this chapter contains the essentials. The next thirteen chapters are devoted to the consideration of the infectious diseases, one chapter being allotted to each disease. The chapters devoted to the consideration of Tuberculosis and Typhoid Fever are particularly good. The chapter on The Bacteria of Surgical Diseases shows excellently the necessity for "surgical cleanliness," and the difference between surgical cleanliness and æsthetic cleanliness. Then follows an excellent chapter on The Care of the Mouth. If nurses would "read, learn, mark, and inwardly digest" this chapter, many a patient would be anxious for food earlier in his convalescence, and would be better able to digest it when given. The chapter on Ophthalmia Neonatorium is one that every obstetric nurse should learn by heart.

The chapter on Ventilation and Heating is very good, embodying the results of the best thought in sanitary science on that subject.

Then follows a chapter on Immunity and Protection from Disease, which gives very kindly the several theories on that subject.

The book ends with a chapter on Food, which contains a

number of important facts in regard to foods and their digestibility, and the best ways of administering them. It does not pretend in any way to be complete. The few hints here given may help the nurse in the right direction, and she can fill up the gaps by study in physiology, cooking, and other branches. This excellent little work is made complete by a full alphabetical index. We gladly recommend it as a text-book in all Training Schools for Nurses. The binding and letter-press leave nothing to be desired.

DeL. R.

A Manual of Physics. Being an introduction to the study of Physical Science. Designed for the use of University Students, by William Peddis, D. Sc., F. R. S. E., Assistant Professor of Natural Philosophy, in the University of Edinburgh. New York : G. P. Putnam's Sons. London : Bailliére, Tindale & Co. 1892.

To a book of this nature, the rapid glance which we are necessarily compelled to bestow upon it, can hardly be expected to do full critical justice. However, even a cursory view is sufficient to discover that we have before us a work of uncommon value to the advanced student, for whose use it was especially intended. Even to those who have lacked the advantages of a collegiate education, but who desire to know the latest advances in the knowledge of physic, its many phenomena, and the laws which science has been enabled to deduce, its possession and study must be of great value. In our practical age, and especially in our own country, a want of knowledge of the scientific principles which are the foundation for every useful invention, whether in dynamics, optics, electricity, or other forms of physics, must necessarily be almost fatal to ingenious enterprises. This book is a small octavo, 496 pages, beautifully printed, well bound, and carefully indexed.

The Students' Handbook of Surgical Operations. By Frederick Treves, F. R. C. S., Surgeon and Lecturer on Anatomy at the London Hospital. In one square 12mo volume of 508 pages, with ninety-four illustrations. Cloth, $2.50. Philadelphia : Lea Brothers & Co. 1892.

Anything that emanates from the pen of Mr. Frederick Treves always receives, as it generally deserves, patient examination and careful reading. The present work, the author says in his preface, is intended for the use of students who are preparing for the fina examinations, or who need a handbook to assist them in carrying out operations upon the dead body. It is an abridgment from

this author's Manual of Operative Surgery, lately noticed in the JOURNAL. For the purpose indicated, we have not seen so complete a book in any department of medicine or surgery. It is a student's handbook, without being a quiz work adapted only and solely to the brain-cramming process. It is also a valuable aid to the student in the pursuit of surgical anatomy in the dead-room. The mechanical execution of the book is unusually handsome.

INDEX-CATALOGUE OF THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE, UNITED STATES ARMY. Authors and subjects. Vol. XIII. Sialagogues-Sutugin. Washington: Government Printing Office. 1892.

This useful and voluminous publication has now reached a point where the end probably can be seen in the not distant future. It has been going on steadily for the past twelve years, and, one by one, these volumes have come as regularly as the autumn season has returned. The present volume contains 9,751 author titles, representing 4,213 volumes, and 6,806 pamphlets. It also includes 13,498 subject titles of separate books and pamphlets, and 29,896 titles of articles in periodicals. The total number of titles listed in the thirteen volumes now issued is as follows: Author titles, 147,329; volumes, 71,068; pamphlets, 126,806; subject titles of books and pamphlets, 141,782; journal articles, 423,704; portraits, 4,335. This will indicate to those not already advised the stupendous nature of the work, and the width of its scope. When finished it will make the most comprehensive reference series on medical subjects in the world.

BOOKS RECEIVED.

Text-Book of Ophthalmology. By Dr. Ernest Fuchs, Professor of Ophthalmology in the University of Vienna. Authorized translation from the second enlarged and improved German edition. By A. Duane, M. D., Assistant Surgeon Ophthalmic and Aural Institute, New York. With numerous illustrations. Octavo, pp. xiv.—188. New York: D. Appleton & Co. 1892.

A Treatise on Diseases of the Rectum, Anus, and Sigmoid Flexure. By Joseph M. Mathews, M. D., Professor of Principles and Practice of Surgery, and Clinical Lecturer on Diseases of the Rectum, Kentucky School of Medicine; Visiting Surgeon, St. Mary and Elizabeth Hospital; Consulting Surgeon, Louisville City Hospital; Consulting Surgeon, Jennie Cassady Free Infirmary for Women; late President Mississippi Valley Medical Association; President Louisville Clinical Society: Vice-President Louisville Surgical Society; Member International Medical Congress, American Medical Association, Southern Surgical

and Gynecological Society, Kentucky State Medical Society, State Board of Health of Kentucky ; Orator of the American Medical Association on Surgery, 1891, etc. With six chromo-lithographs and numerous illustrations. Octavo, pp. xvi.—537. New York : D. Appleton & Co. 1892.

Diseases of the Eye, Ear, Throat, and Nose. A Manual for Students and Practitioners. By Frank E. Miller, M. D., Attending Physician, St Joseph's Hospital ; Throat Surgeon, Vanderbilt Clinic, New York ; James P. McEvoy, M. D., Throat Surgeon, Bellevue Hospital, Out-Patient Department, New York ; and John E. Weeks, M. D., Surgeon, New York Eye and Ear Infirmary; Lecturer on Ophthalmology and Otology, Bellevue Hospital Medical College, New York.

The Students' Quiz Series. Physiology, by Frederick A. Manning, M. D., Attending Surgeon, Manhattan Hospital, New York. Series edited by Bern B. Gallaudet, M. D., Demonstrator of Anatomy, College of Physicians and Surgeons, New York. Visiting Surgeon, Bellevue Hospital, New York. Pocket size, 12mo, 201 pages, sixty-nine illustrations, $1.00. Philadelphia : Lea Brothers & Co.

A Treatise on Nervous and Mental Diseases. By Landon Carter Gray, M. D., Professor of Nervous and Mental Diseases in the New York Polyclinic ; Ex-President of the American Neurological Association, etc. In one very handsome octavo volume of 681 pages, with 168 fine engravings. Cloth, $4.50 ; leather, $5.50. Philadelphia : Lea Brothers & Co. 1893.

A Manual of Bacteriology. By George M. Sternberg, M. D., Deputy Surgeon-General, U. S. Army ; Director of the Hoagland Laboratory, Brooklyn, N. Y. ; Honorary Member of the Epidemiological Society, of London ; of the Royal Academy of Medicine, of Rome ; of the Academy of Medicine, of Rio de Janeiro ; of the American Academy of Medicine, etc., etc. Illustrated by heliotype and chromo-lithographic plates, and 268 engravings. New York : William Wood & Co. 1892.

Handbook of Pathological Anatomy and Histology, with an introductory section on Post-Mortem Examinations and the Methods of Preserving and Examining Diseased Tissues. By Francis Delafield, M. D., LL. D., Professor of the Practice of Medicine, College of Physicians and Surgeons, Columbia College, New York, and T. Mitchell Prudden, M. D., Professor of Pathology and Director of the Laboratories of Histology, Pathology, and Bacteriology, College of Physicians and Surgeons, Columbia College, New York. Illustrated by 300 wood engravings printed in black and colors. Fourth revised and enlarged edition. One large octavo volume of 732 pages, with 300 wood engravings, beautifully printed on fine super paper, and bound in blue imported muslin. Price, $6.00. New York : William Wood Co. 1892.

Transactions of the American Surgical Association. Volume the tenth. Edited by J. Ewing Mears, M. D., Recorder of the Association. Philadelphia : Printed for the Association, and for sale, by Wm. J. Dornan. 1892.

A Manual of Physics ; being an Introduction of the Study of Physical Science. Designed for the use of University students. By William Peddie, D. Sc., F. R. S. R. Assistant to the Professor of Natural Philosophy in the University of Edinburgh. New York : G. P. Putnam's Son. London : Bailliére, Tindall & Cox. 1892.

The Anatomy of the Perineum. By Franklin Dexter, M. D., Assistant Demonstrator of Anatomy, College of Physicians and Surgeons, Columbia University, New York. With thirty-eight illustrations. New York : D. Appleton & Co. 1892.

Handbook of Physiology. By W. Morrant Baker, F. R. C. S., Late Surgeon to and Lecturer on Physiology at St. Bartholomew's Hospital, etc., and Vincent Dormer Harris, M. D., London, Examiner of Physiology at the Conjoint Board of the Royal College of Physicians and Surgeons, and in the University of Durham ; Demonstrator of Physiology at St. Bartholomew's Hospital ; Physician to the Victoria Park Hospital for Diseases of the Chest. Thirteenth edition. With upwards of 500 illustrations, including some colored plates. Philadelphia : P. Blakiston, Son & Co., 1012 Walnut street. 1892.

Addresses and Essays. By G. Frank Lydston, M. D., Professor of the Surgical Diseases of the Genito-Urinary Organs and Syphology, in the Chicago College of Physicians and Surgeons; Surgeon-in-Chief of the Genito-Urinary and Venereal Department of the West Side Dispensary, Chicago ; Fellow of the Chicago Academy of Medicine, and of the Southern Surgical and Gynecological Association ; Lecturer on Criminal Anthropology in the Union Law School ; Honorary Member of the Texas State Medical Association. Second edition, revised and enlarged. Published by Renz & Henry, Louisville, Ky.

Acne and Alopecia. By L. Duncan Bulkley, A. M., M. D., Professor of Diseases of the Skin, New York Post-Graduate Medical School ; Physician to the New York Skin and Cancer Hospital, etc. Geo. S. Davis, Detroit, Mich. 1892.

Diseases of the Lungs, Heart, and Kidneys. By N. S. Davis, Jr., A. M., M. D., Professor of Principles and Practice of Medicine, Chicago Medical College ; Physician to Mercy Hospital ; Member of the American Medical Association, Illinois State Medical Society, Chicago Medical Society, Chicago Academy of Sciences, Illinois State Microscopical Society ; Fellow of the American Academy of Medicine ; Author of Consumption, How to Prevent It, and How to Live with It," etc. No. 14 in the Physicians' and Students' Ready-Reference Series. In one neat 12mo volume of 359 pages, extra cloth, $1.25 net. Philadelphia : The F. A. Davis Co., 1231 Filbert street.

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Original Communications.

EXTRACTION OF STEEL FROM THE INTERIOR OF THE EYE WITH THE ELECTRO-MAGNET.[1]

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The use of the magnet in removing steel from the eye has been suggested and practised at various times in the past, but the merit of effectually introducing it and stimulating the profession to examine into its utility is due, first, to Dr. W. A. McKeown, of Belfast, Ireland, who, in 1874, published (*British Medical Journal*, Vol. I., 1874,) his experience with the permanent magnet, constructed with a tapering point, and to Dr. J. Hirschberg, of Berlin, who, in 1881, published (*Archives of Ophthalmology*, Vol. X., 1881,) the results of his experiences with the electro-magnet as most ingeniously adapted to the eye by himself. Since then various forms of both permanent and electro-magnets have been constructed, and every good ophthalmic surgeon makes one of these instruments an especial part of his armamentarium. The permanent magnet, however, has so little power of attracting iron as compared with the electro-magnet that the latter has quite superseded the former. Hirschberg's electro-magnet is, perhaps, the form most used at the present time, yet, of all with which I am acquainted, this is the most cumbersome and unwieldy.

It was upon the failure of a Hirschberg magnet in the hands of a friend, to serve the purposes desired, together with peculiar circumstances pressing upon me, and a desire to save a patient's only eye, that I was led, in 1884, to devise an instrument that seemed to me to be more in accord with the needs of the case then put into my hands. I submitted the plan for an electro-magnet to a

1. Read before the New York State Medical Association, November 15, 1892.

practical electrician of my city, who made for me the one heretofore published in the BUFFALO MEDICAL AND SURGICAL JOURNAL for July, 1888. George Tiemann & Co., of New York, have, at my suggestion, recently made some improvements in its construction, preserving at the same time the essential features which distinguished the original.

The advantages claimed for this magnet are: Its great power of attraction, its lightness, its small size, and its shape, most convenient for manipulation. With this instrument I have extracted steel from the interior of the eye in the following cases:[1]

CASE I.—M. S., aged 43, boiler-maker, was struck in his left eye June 18, 1884. The sight, he says, was destroyed at once, and an ophthalmic surgeon enucleated the ball.

On the morning of the 27th of August following, two months after the accident to the left eye, while striking a "set," a chip of steel flew into the right eye. The eye "watered" some afterwards, but there was very little pain, and the vision was "pretty good." Attempts were made on the 28th by a fellow-practitioner to extract the steel through the wound produced by it, by means of a Hirschberg magnet, but without success. The doctor declined to make further efforts to get the foreign body, and the patient was placed in my hands on the evening of August 30th. The eye at this time was in constant pain, with a "prieking" sensation in its upper part. Vision was reduced to counting fingers. There was considerable lachrymation, the lids were somewhat swelled, the eyeball was very red, and the conjunctiva of the lower part was chemotic. There was a wound two to three millimeters long at the junction of the lower part of the cornea and sclera. This was still open and a bead of vitreous was pressing through it. The pupil was irregular in shape, a piece of iris evidently having been cut off in the direction of the wound. The ophthalmoscope showed the fundus to be greatly obscured by hemorrhage or inflammatory products in the vitreous, and the steel could not be seen. I was assured, however, that it had been seen in the vitreous. The lens appeared to be perfectly transparent, the wound and field of previous operations having been through the suspensory ligament.

The case did not present a very hopeful prospect, but as this was the only eye left to him, I was willing to add my efforts to those that had already been made to extract the steel, and, if possible, save at least a little vision. The first thing needful, however, was a good electro-magnet, and this I did not possess, and my only means of obtaining one within a brief time was to have one made. I at once applied to an electrician of my city, and suggested to him how one, in my opinion, should be made. At 10 o'clock the next day he had one ready.

At 11 o'clock A. M., August 31st, just four days after the injury,

1. Cases I. and II. have already been published in the JOURNAL in July, 1888.

I proceeded with the proposed operation. The patient being anesthetized, I dissected back a small triangular flap of conjunctiva from the sclera, between the equator of the ball and the ciliary region, and between the external and inferior and recti muscles. After the hemorrhage was stopped I made an anteroposterior incision through the sclera into the vitreous. This incision was about three millimeters long. A few drops of straw-colored fluid escaped. Through this incision I introduced into the vitreous an extension-point of the electro-magnet, about one centimeter in length and one millimeter in diameter at its end. I directed the point at first towards the center of the ball and posteriorly, but found nothing. I then directed it forwards, when I both felt and heard a distinct click, which was also heard by the bystanders. On withdrawing the point the steel came with it, firmly held in its magnetic grasp. It was a thin scale about three millimeters in length and one and a half in width. The conjunctival flap was replaced over the incision and sutured at its apex.

Very little reaction followed the operation, and both the original and operative wounds healed kindly. After several months the opacities had cleared up in the vitreous, and the patient was able to read No. 2 Jaeger, at fourteen inches, with the aid of + 1.00 D. glass. The visal field was considerably contracted –most, however, on the inner side. The ophthalmoscope showed marked choroidal changes, such as are found after choroiditis, and these were numerous, but most marked in the lower and outer parts of the fundus. The patient reads a great deal and is enabled to earn an independent livelihood.

Case II.—April 5, 1888, I was invited by Dr. Frank W. Abbott, of Buffalo, to assist him in the following case: On April 3d, Miss A., about 20 years of age, was stitching leather with a sewing machine, when the needle broke and a piece struck her right eye. She applied to Dr. Abbott for advice, not, however, suffering much distress or pain. On examination, there was scarcely any evidence of injury, except that the anterior chamber was obscured with blood. A solution of atropia was instilled, and she was asked to return in two days. At this time I was invited to see the case. The blood had become absorbed, and the pupil was nearly at its maximum dilatation, thus permitting an easy examination of the fundus. The ophthalmoscope showed all the media to be transparent. A piece of the sewing-machine needle could be distinctly seen in the vitreous, projecting from the anterior and inner part of the cavity directly towards its center. A slight mark could be distinguished externally at the inner corneo-scleral junction, indicating the point of its entrance. It had evidently passed through the iris, and nearly through the ciliary body, by which it was now firmly held. The eye was slightly red and irritable.

Arrangements were made for an operation on April 6th, at which I assisted with my electro-magnet. The patient being anesthetized,

Dr. Abbott excised a piece of conjunctiva immediately posterior to the point of entrance of the needle, on the inner side of the ball, over the ciliary region. The hemorrhage was stopped, first using pieces of ice, but afterwards cotton steeped in hot water, which was much more effective. He then made an antero-posterior incision directly down to the steel through the sclera and ciliary body into the vitreous cavity, about three millimeters long. The magnet being in readiness, I introduced a small extension through the incision, and it at once grasped the broken needle, but without loosening it. I held it steadily with the magnet while the doctor enlarged the incision anteriorly until it was entirely disentangled, when it was easily withdrawn, adherent to the magnet.

The conjunctival wound was closed by two sutures passed perpendicularly to the sclerotic incision. The patient was kept quietly in bed a few days with the eye bandaged, and atropia was occasionally instilled.

I examined the eye four weeks after the operation, and it appeared to have fully recovered, and vision was, the patient said, "as good as ever."

Case III.—Patrick H. E., aged 28, boiler-maker, while caulking a boiler, using a hammer and caulking tool, on August 6, 1888, was struck by a scale of iron on the outer part of the cornea of the left eye. He visited an oculist of Buffalo, who examined his eye and told him that there was steel in it. He prescribed for him a two-grain solution of atropia, to be instilled every two hours, and directed him to call in two days. The patient then went to his family physician, who advised him not to wait so long, and sent him to me. I found a vertical wound in the left cornea, one millimeter to the inside of the outer margin, and two millimeters long. The iris beneath also had a vertical wound a little shorter and slightly gaping. No foreign body could be seen by an external examination, and with the ophthalmoscope the fundus appeared clear posteriorly; but to its outer side there was a dark, opaque spot behind the region where the iris was wounded. The vision was normal. There was no pain in the eye, but there was some lachrymation, and the eyeball was reddened. I diagnosed steel in the eye and proceeded to find and remove it, if possible, with the electro-magnet. I used a small extension point, a little less than one centimeter in length. After thoroughly cocainizing the eye I introduced this through the wound of the cornea and iris, produced by the foreign body, carefully avoiding the crystalline lens. I passed the point to the depth of about one-half centimeter, when the iron struck it with a distinct click, which was heard by all present. It was firmly held by the magnet, and was drawn out through the wound by a little effort and after enlarging the wound slightly with a knife, the edges of the steel being ragged and catching on the surrounding tissues. The magnet was aided by forceps in the extraction, after the steel was brought to the wound.

The steel was a thin scale seven millimeters long and two milli-

meters wide at its widest part, and weighed one grain. The crystalline lens did not seem to have been wounded, either by the passing in of the steel or its removal. The eye was dressed with 1 to 4,000 bichloride solution, and a four-grain solution of atropia ordered to be used every two hours. The eye was considerably inflamed for two days after the operation, but from that time on recovered rapidly, and on September 29th it was well. There was a slight scar of the cornea, and the iris showed a vertical slit at the point of injury. The crystalline lens was dotted with opacities. The vision equaled No. 60 Snellen at four meters, and Jaeger No. 18, slowly, at ten inches. The patient was not seen afterwards. In this case the eye was saved, but a traumatic cataract followed, which, if successfully removed later, would undoubtedly have given good vision.

Case IV.—George C., aged 29, blacksmith, consulted me on the evening of August 6, 1890, for an injury of his eye. That afternoon, while cutting a bolt with a "cold-chisel," a piece of the steel flew off and struck his left eye. I found a vertical wound about four millimeters long, just outside of the inner cornea-scleral junction, and the iris was protruding through it. The anterior chamber was filled with blood and the fundus of the eye could not be seen with the ophthalmoscope. No foreign body could be seen upon external examination, but I was of the opinion that a piece of iron had entered the vitreous space. Under cocaine anesthesia, I cut off the protruding iris, and with the electro-magnet, armed with an extension-point, one centimeter in length and one and a half millimeters in diameter at its end, I began my search. On introducing the point to a depth of about one-half centimeter, it caught the iron with a pronounced click, and on being withdrawn brought it to the corneal wound. I found it to be a large piece of irregular and ragged contour, and it became necessary to enlarge the wound a little and assist with forceps before it could be drawn out. The conjunctiva was drawn together over the sclerotic wound by a suture. After instilling a six-grain solution of atropia, the eye was dressed with 1 to 4,000 bichloride solution, and both eyes were bandaged. The piece of steel was one centimeter long, one-half centimeter wide, and two millimeters in thickness, and weighed seven grains. Some inflammatory reaction followed the operation, but this soon subsided. The pupil was kept dilated by atropia and the suture was removed on the fourth day. The patient was discharged September 29th, with vision equaling No. 24 Snellen, at three meters. At this time the media were all clear, but the fundus showed several spots of choroidal atrophy at its inner side.

Case V.—Michael B., aged 39, laborer, consulted me December 13, 1890. Two days previously a piece of steel from a hammer struck his right eye. The eye pained him for a short time, but has since been easy, and at this time was only slightly red. Vision equaled No. 60 Snellen, at one meter. The anterior chamber was

normal; pupil normal in size and responded well to light. At the outer part of the cornea, one millimeter inside of its margin, there was a vertical cut, one millimeter in length, nearly healed. The iris showed a minute vertical opening at its outer side, half way between its pupillary margin and periphery, the bottom of which appeared whitish. The pupil dilated readily under cocaine, and the ophthalmoscope showed the lens to be slightly hazy at its posterior part, and at its outer and anterior portion was a milky-looking reflection, one millimeter wide, starting from the iris-wound and running backwards about four millimeters. Instillations of atropia and boracic acid solution were used every four hours.

December 14th, 9 A. M., consultation was held with Dr. Abbott, who agreed with me that there was steel in the eye. Under cocaine I made a vertical incision of the cornea near its outer margin and over the iris-wound, and introduced through this and the opening in the iris electro-magnet points of different sizes and lengths, but could not find the steel, although they were passed deeply into the vitreous as far as seemed prudent. The eye was then dressed, and atropia and boracic acid solution ordered as before.

December 16th, the eye was painful and much inflamed. Gave the patient chloroform and made another attempt to find the steel with the magnet, and succeeded, introducing the point through the same wound as before. The steel was very minute in size, being a thin scale, two millimeters in length and half a millimeter in width. Inflammation, which had already begun, continued and resulted in panopthalmitis, necessitating enucleation of the ball at the end of four weeks.

CASE VI.—Fred T., aged 39, laborer, visited me December 5, 1891. He stated that the day before, while cutting off a rivet from a salt evaporating-pan with a chisel, he was struck in the right eye by a piece of iron. Upon examination of the eye I found it inflamed, with a wound in the ciliary region near the outer border of the cornea, extending obliquely downwards and inwards, and about six millimeters in length. The iris was protruding between the lips of the wound, and both the aqueous and vitreous chambers were filled with blood. Vision equaled no perception of light. Under cocaine the iris protrusion was cut off. An exploration was then made with the electro-magnet, using an extension-point, one centimeter long and two millimeters in diameter at its end. On passing the magnet about three millimeters into the vitreous and directing it backwards, some stagnant blood flowed out and the iron was attracted to the magnet with a pronounced click, as is usual in such cases. The piece of iron seemed to lie across the wound, and it was worked down and back with a silver probe, and after a little came out end-wise without enlarging the wound. I instilled a four-grain solution of atropia and dressed the eye with 1 to 4,000 bichloride solution.

The iron was a thick scale, twelve millimeters long by four wide,

and weighed three grains. Considerable inflammation followed, the conjunctiva becoming chemotic and the eyelids swelled. This subsided, however, in a few days, when he returned to his home, fifty miles distant, after which I lost sight of him.

Case VII.—William M., aged 22, boiler-maker, called at my office November 30, 1891, and stated that he had been struck in the left eye about an hour previously with something while caulking a boiler with a hammer and caulking tool. I found some blood in the lower part of the anterior chamber, and there was a cut through the sclera, just below and to the inner side of the cornea, extending horizontally inwards, and about three millimeters in length. No foreign body could be seen by external examination. The pupil was dilated under atropia, but the ophthalmoscope showed the fundus to be clouded with blood. The patient had no pain. Vision equaled No. 5 Snellen, at two meters.

My diagnosis was steel in the vitreous humor. Under cocaine I introduced a point of the electro-magnet through the wound, and at a depth of not more than three millimeters, caught a piece of iron and drew it out by a little coaxing without the aid of any other instrument. The conjunctiva was drawn together over the sclerotic wound, a solution of atropia was instilled into the eye, and a bichloride dressing applied.

The steel was a thin scale, about seven millimeters long, one and one-half wide, and weighed one-half grain. The eye recovered without any inflammatory reaction, and, at a subsequent examination, the vision was found to be No. 5 Snellen, at five meters.

Case VIII.—Arthur S., aged 24, machinist, on January 14, 1892, while holding a mandrel for another man to strike with a sledge-hammer, a piece of something flew and struck his right eye. He consulted me about four hours after the injury, and I found a clean-cut, vertical wound at the outer margin of the cornea in the sclera. It was about three millimeters long, and the periphery of the iris was drawn into it, giving the pupil an irregular shape and a displaced position. With a probe, gently used, the iris and pupil were restored to their proper position, when an opening was detected through the iris and suspensory ligament of the lens. The eyeball was red, but the patient complained of very little pain. I could not see the bottom of the fundus with the ophthalmoscope on account of the blood in the vitreous. Vision equaled No. 9 Snellen, at one meter.

My diagnosis was a piece of iron in the vitreous humor, but on several careful trials, with various sized points of the electro-magnet introduced through the wound, I could not find any. Failing in these efforts, I instilled a six-grain solution of atropia and applied bandages, with directions to call again the next day.

January 15th, 10 A. M.—The eye had been comfortable since last visit. Vision equaled No. 9 Snellen, at one and a half meters. The pupil was dilated, and with the ophthalmoscope I could see at

the upper and back part of the fundus, to the right side, a black opacity, appearing to be about six millimeters in diameter, making positive the diagnosis of steel in the vitreous chamber. The corneal wound had closed and the aqueous humor had reformed. Atropia was again instilled and the eye bandaged.

January 16th, the eye was more inflamed. Vision equaled No. 24 Snellen, at one meter. Dr. Abbott was called in consultation and agreed with me as to the diagnosis, and that another attempt at extraction should be made. After cocainizing the eye thoroughly, a small conjunctival flap was raised from the sclera on the outer side of the ball, between the external and inferior recti muscles. After the hemorrhage was stopped, a horizontal incision about four millimeters long was made through the sclera into the vitreous. Through this I introduced an extension-point of the electro-magnet, which I had curved somewhat, whose length was about one centimeter, and at its end, one and one-half millimeters in diameter. At a depth of about five millimeters the magnet caught the piece of iron, and it was easily brought out. It was a thin scale, two millimeters long, and one and one-half wide, and weighed about one-fourth of a grain. The conjunctival flap was replaced with a suture at its apex, atropia was instilled and the eye bandaged.

January 17th, 11 A. M.—He had very little pain during the past twenty-four hours. Pupil was well dilated and vision equaled No. 9 Snellen, at two meters. The eye afterwards healed well, but on March 22d, vision was lowered to a few of No. 12 Snellen, at two meters. The media were transparent.

CASE IX.—John S., aged 20, boiler-maker, consulted me February 21, 1892, with a history that two hours before, while driving a steel plug into a boiler, a piece of iron struck the left eye. There was a small wound through the lower lid below the central part of its margin, and one through the sclera a little to the left of the lower margin of the cornea. Beneath this a small, shiny spot could be seen in the iris. A fine probe showed that the wound extended into the vitreous at this point. Vision equaled No. 36 Snellen, at one meter. Under cocaine the electro-magnet was applied, introducing a small point one centimeter long through the original wound, which had been slightly enlarged with a knife. At the depth of about three millimeters the magnet caught the piece of steel, and after several attempts it was drawn out. Atropia was instilled and the eye was dressed antiseptically.

The steel was a thin scale about one and one-half millimeters square. The eye made a rapid recovery, and on May 29th, with −3.00 D, vision equaled No. 18 Snellen, at five meters, and the media were transparent.

CASE X.—W. T. G., aged 30, machinist, was brought to me by Dr. A. G. Bennett for consultation August 8, 1892. Six weeks before he was struck in the left eye with a piece of steel. Vision was impaired at once. The patient had a druggist look at his eye, but no foreign body could be seen. He gave him some "eye-

water," which he used and the eye gave no pain or trouble. But, as the vision did not improve, he applied to Dr. Bennett a few days ago, who examined him, and made a diagnosis which I consider most commendatory to his judgment and skill as a young practitioner. My own examination simply confirmed his diagnosis.

Externally, the eye appeared perfectly normal, except that a minute hole could be seen in the iris at its inner part near its periphery. The pupil being dilated with a mydriatic, the ophthalmoscope showed a few minute opaque dots in the lens as if "peppered" in half a dozen places; but otherwise the media were transparent. Every part of the fundus was normal, except at the macular region. Here, extending from the macula lutea, directly upwards was a black line, in length a little less than the diameter of the optic disc, and in width a little more than the diameter of the largest retinal vein. It showed a slight luster, and on each side was seen a white line, evidently the sclera exposed through the split choroid. Around this was a line of pigment. Peripheral vision was apparently normal, but central vision, and that part of the field a little below the center, was lost. At a distance of five meters the central scotoma was about the size of a man's head. I did not take a perimetric chart of the field. By looking a little eccentrally, vision equaled No. 60 Snellen, at five meters. There was no doubt in my mind as to the correctness of Dr. Bennett's diagnosis of steel in the retina, at the upper part of the macula lutea.

What should be done? It was agreed that the eye would be better off with the steel out, that very little danger would attend a careful attempt at extraction, and that if the effort was unsuccessful, the eye would not suffer more in the end.

The eye, therefore, was thoroughly anesthetised with cocaine and the proposed operation begun. A triangular conjunctival flap having been raised from the sclera in front of the equator, and between the external and inferior recti muscles, hemorrhage stopped, and a horizontal incision, five millimeters long, carried through the bared sclera into the vitreous by Dr. Bennett. I placed the patient in a convenient position in which I could use both the ophthalmoscope and the electro-magnet. I used an extension-point, one and one-half centimeters long, with end one millimeter in diameter, and curved so as to be directed easily towards the macula. With my right hand I introduced this point through the sclerotic incision, and under the clear observation of the fundus, with the ophthalmoscope held in my left hand, cautiously passed it through the vitreous to the macular region, lightly touched the black object, and then withdrew the magnet with the offending body on its point. The single attempt secured the coveted trohpy.

The conjunctival flap was replaced and held by a suture at its apex, atropia instilled, and the eye bandaged. No reaction followed the operation, and the eye rapidly recovered. The steel extracted

was a minute scale, one and one-half millimeters long and three-fourths of a millimeter wide.

October 23, 1892.—Eleven weeks after the operation the eye appeared to be normal on external examination, and with the ophthalmoscope, the pupil being dilated with a mydriatic, the lens presented the same appearance as before the operation, the vitreous was transparent, and at the macular region, at the point from which the steel had been extracted, there was an area of about the same extent (although a little wider) as seen at the first examination, resembling in disturbance of pigment and color a patch of choroidal atrophy. Vision was the same as before the operation, but the eye was more sensitive to light.

This case, to me, is a most interesting one, and is one among a very few on record in which steel has been successfully extracted from the retina. The injury which the steel inflicted was peculiar in view of its location, and although the vision was permanently impaired by it, the operation of extraction did not further lessen it.

Remarks.—In this group of ten cases, all that I have seen, it will be noted that in every case the steel was found in some part of the vitreous space. In every case it had entered near the corneo-scleral junction and passed through the iris and suspensory ligament or ciliary body. In one case it passed through the lower lid first, and then through the cornea and iris into the vitreous. In eight cases it seemed to be resting in the vitreous. In one it it was lodged in and held at its outer extremity by the ciliary body, and in one it was imbedded in the retina. The size of the steel varied from a minute scale to a large piece weighing seven grains. In every case but one the accident occurred while striking iron with a hammer, and the steel was propelled with great momentum. One eye was lost by infection, although antiseptic precautions were taken in this, as in all the other cases. In three cases the first attempt at extraction failed. In one of these a second attempt through the original wound, and in two through a sclerotic incision, was successful. In the first of these the eye became infected and was afterwards enucleated. The other two recovered with useful vision. In seven cases the steel was extracted through the original wound at the first attempt. In one the first attempt was by an incision through the sclera and was successful.

These cases only add further and impressive illustrations to those furnished by other ophthalmic practitioners of the benefits of the electro-magnet in the class of injuries under consideration. The lesson is that with it a great majority of the cases in which iron has been driven into the cavities of the eye, this can be saved with more or less vision, while without it almost every one would

be totally lost, and perhaps cause, also, the loss of its fellow eye. In some cases the injury to an eye is so great that no attempt should be made to save it by removing the steel, but it should be enucleated or eviscerated at once.

In considering the propriety or need of using the electro-magnet, a correct diagnosis is always desirable, but this is often not easily arrived at.

The history of the case that in hammering or working iron a splinter has struck the eye, that it has made a wound through its coats, and that the piece was not afterwards found by the patient, makes the presumption very strong that it has entered the eye. As a rule, a minute object striking the eye with sufficient force to cut through its coats is carried on into the non-resisting fluids within by its own momentum. The examination of the eye by oblique illumination and the ophthalmoscope, the pupil being dilated, if possible, sometimes gives negative and sometimes positive information.

Steel may be lodged at any point in the cornea, sclera, iris, lens, or in the vitreous or inner coats of the eye. Blood and inflammatory exudates and opacities of the cornea or lens obscure the view. But when there is no obscuration, steel is easily recognized by its black appearance, or by its shining luster from the reflection of the light from the ophthalmoscope or focal illumination. This lustrous reflection often replaces the dark appearance of the iron. If the iron is in the vitreous cavity, it will appear, when seen with the ophthalmoscope, very much magnified in size.

The sensations of the patient or the state of vision are of very little value in making out a diagnosis. The diagnosis is positive when the foreign body can be seen; when it cannot be seen it is probable, in different degrees of certainty according to the history of the injury and the character of the wound inflicted.

In using the electro-magnet in a case in which steel has either, probably or positively entered the eyeball, it should be made to pass as directly as possible to the supposed or known location of it in lines of least resistance, and through an area of least functional value. Sometimes the accident-wound meets these requirements, but oftentimes it does not. If steel has penetrated into the vitreous through the cornea near its margin and through the iris and suspensory ligament of the lens, there is always great danger of adding further traumatism to the parts, and especially to the

lens. That part of the ball through which the magnet can be introduced with least danger to important structures and to sight, and, at the same time, most accessible to every point within the vitreous chamber, is the sclera just in front of the equator of the ball, and preferably in most cases on the outer side between the external and inferior recti muscles. It is better to make the sclerotic incision after dissecting up, at the place chosen, a small triangular flap of conjunctiva, or excising a piece and stopping the hemorrhage.

Had I selected this position for operative procedure in Case V., instead of endeavoring to follow the track of the steel, I have no doubt that I would have found and removed it on the first attempt and saved the eye.

In Cases I. and VIII. the effort to extract the steel through the corneal and iris wound failed after several trials. But on opening the sclera, as described above, the first introduction of the magnet secured and brought it out.

Case X. shows, also, how the magnet-points may be passed directly to the macular region (and, indeed, to any other,) with the minimum of operative traumatism to the eye. It is also a forcible illustration of the greater ease and safety with which a piece of steel imbedded in the coats of the eye posteriorly can be reached than by more extended operative procedures.

The early use of the electro-magnet is preferable to waiting till pathological processes follow the introduction of the steel. Sometimes, it is true, the eye will tolerate steel for an indefinite period of time, perhaps for years, but this is the exception rather than the rule. By waiting, the steel becomes embedded in exudates, when the magnet cannot attract it at all, and if the eye does become inflamed, enucleation is then the only safe treatment. The proper use of the magnet is usually so successful when applied early, that it seems to me there is no alternative between immediate operation and delay.

The form of electro-magnet, especially of the extension-points, is a matter of no little importance. The magnet itself should be as light as possible consistent with sufficient attracting power, and of a shape convenient for handling. The extension-points should be as near as practicable to the coil around the core, and no longer than is necessary to reach the supposed location of the steel, and certainly never more than two centimeters ($\frac{3}{4}$ of an inch), and at the ends from one-half to one and one-half millimeters in diameter.

The power of attraction diminishes very rapidly as the end is lessened in size or carried further from the coil around the core. Again, the points should not be rounded, but flat at the ends, and also on the sides from the ends backwards for a short distance, as by this a larger surface of contact is presented and the holding power increased. The magnet which has served me so well is constructed upon these principles.

In conclusion, I submit this report to emphasize anew the utility and benefits of the electro-magnet in ophthalmic surgery; to recommend its early employment; to call attention to a special form of instrument which, I believe, better than some others, fulfills the requirements needed; and in addition, to advocate a more general adoption of the sclerotic incision, as the safest method of reaching steel when it lies at any point, supposed or known, in the vitreous humor, or the inner coats of the eye, even to the disregard of the original wound in many cases.

212 Franklin Street.

Original Address.

ANNUAL ADDRESS OF THE PRESIDENT BEFORE THE MEDICAL SOCIETY OF THE COUNTY OF ERIE.[1]

By WILLIAM WARREN POTTER, M. D.

INTRODUCTION.

As regularly as the years return come these annual meetings of the Medical Society of the County of Erie, and as 1893 auspiciously begins the cycling of its seasons, it becomes my duty, which is freighted also with pleasure, to welcome you to this meeting and to congratulate you upon its prospects.

The year 1892, just now finished, is, or ought to be, one of pleasant memories to the medical profession of the County of Erie. The remorseless "spirit of the glass and scythe" has touched this Society lightly, and for this we ought to be especially thankful. Only two of its members have gone hence during the year,—one, Dr. John Davidson Hill, in the fulness of his years and in the harvest-time of his professional life, a record of which has been made in due form upon the register of the Society; and the other, Dr. L. C. Carmer,

1. Delivered at the meeting of the Medical Society of the County of Erie, held January 10, 1893.

though not as well known, was a hard-working physician. A suitable tribute to his memory has been prepared and will be spread upon the minutes. Seldom does a year witness a greater degree of prosperity among the people, the general health of the County has been good, and peace and good-will are everywhere prevalent in the ranks of our beloved profession. These, then, are some of the reasons why, when the mantle of office falls upon my successor, I can feel that the year of my service has been marked with as little that could be called unpleasant as generally falls to the lot of the chief officer of this Society.

STATE MEDICAL EXAMINING AND LICENSING BOARD.

But there are other reasons than those of sentiment that give occasion for rejoicing. It is well to remember that the law creating a separate State Medical Examining and Licensing Board had its origin in this Society. In 1883, special meetings were held and a bill formulated, chiefly through the active interest of Dr. Henry R. Hopkins, that was presented to the Medical Society of the State of New York for its approval. After considerable debate and some modification, the bill was introduced in the legislature through the instrumentality of the legislative committee of the State Society. Here it had a rough and varied career for six or seven years, opposed as it was, I am sorry to say, by a combination of quacks, irregulars, and even some who are orthodox college professors. Finally, however, in 1890, a law was passed, the machinery of the execution of which resides in the Board of Regents of the University of the State of New York.

For the information of those not familiar with the workings of the law, it may not be amiss to recapitulate the essential steps now required of any graduate of 1893 to obtain a license to practise medicine in this State. The conditions required may be grouped under seven heads.

First.—The applicant must be a graduate of a college that requires three separate courses of instruction in three separate years.

Second.—His diploma must be submitted to the secretary of the Board of Regents, at Albany, with proof of identity, which must also show a competent preliminary education, together with proof of having studied medicine three years, and of having attended three courses of medical instruction in three separate years.

Third.—If the preceding conditions are adequately met, the applicant receives a permit from the secretary of the Board of Regents to appear for examination at the next session, held simultaneously in New York, Albany, Syracuse, and Buffalo.

Fourth.—The examinations last three days and a half, and are arranged as follows: On Tuesday morning, Anatomy; afternoon, Physiology and Hygiene; Wednesday morning, Chemistry; afternoon, Surgery; Thursday morning, Obstetrics; afternoon, Pathology and Diagnosis; Friday morning, Therapeutics. These examinations are superintended by an examiner, designated by the Regents, but the questions are formulated by the several medical examiners in and for their respective departments.

Fifth.—Upon the conclusion of the examinations at any session the Regent's examiner transmits all the papers to the secretary of the Board of Regents, who in turn sends them out to each medical examiner. If all the medical examiners report that the applicant has received a marking of not less than seventy-five per cent. in each and every department, then he is regarded as having passed, and is entitled to a license.

Sixth.—Whereupon, a license to practise medicine in the State of New York is issued to the applicant, and he becomes, by virtue thereof, a legal practitioner of medicine and surgery.

Seventh.—This license is to be recorded in the County Clerk's office of the County wherein the applicant elects to practise his profession.

Though the law was approved June 5, 1890, to go into operation September 1, 1891, yet under a supplementary exemption act, graduates in medicine who began the study thereof prior to 1889, have escaped its provisions. A further attempt was made in the legislature of 1892 to create exemptions that would have rendered the law practically nugatory for still another year, but this was happily defeated, and I take pride in announcing to you that it is my belief that such defeat was largely accomplished through the efforts of this society.

At a special meeting, held last February, a delegation was appointed to go to Albany, to appear at a public hearing of the students' exemption bill, before the Assembly Committee of Public Health, February 24, 1892. Dr. Edward Clark, one of the delegates, made a forcible address, in which all the objections that the representative of the organized students raised against the bill were answered, and many arguments in favor of maintaining the statute

as it is were offered. The speaker of the Assembly himself, Dr. Bush, was present as a listener. It had been previously reported that there was no doubt but that this committee would report the bill to the Assembly, with the recommendation that it pass. I am informed that the committee rose with a tie vote, hence no recommendation was made, and this attempt to modify the law fell just outside the breastworks.

Dr. Ernest Wende, another member of the committee sent by this society, did most serviceable work in acquainting the members of both houses of the legislature, of the direful effects any further exemptions would have upon the progress of medical education in this State. Dr. Bush, the Speaker of the Assembly, I believe, was largely instrumental in preventing any action on this amendment, and I hope this society will take occasion at this meeting to extend its cordial thanks to himself and Dr. Goldberg, which latter also rendered efficient aid in the same direction. Dr. Goldberg is a member of this society, and is also a member of the present legislature; it is to him and through him we must look for the prevention of any further attempts to emasculate the medical practice act of 1890. It now, for the first time, becomes of full force and import to the graduates of medical colleges in this State, as well as to those outside the State who come here to practise. All will be obliged now to submit to the separate State examination before they obtain legal authority to do so.

The points of special importance in this law are: First, that a preliminary education is required before admission to the medical schools. Second, that each medical school in this State must establish a three years' curriculum. Third, a diploma from a legal medical school no longer confers a right to practise, but the holder must submit to a separate examination by the State Board. This releases the medical schools from the dreadful system of rivalry which has heretofore prevailed, and stimulates them to give their students the best equipment possible during three years of collegiate instruction. The effect cannot be otherwise than good upon the profession, and it certainly must benefit the public, but it will take some time to make its full force and effect appreciable in these directions. Ten years' time has been lost through opposition and prejudice; let us endeavor to recover as much of this lost ground as we may by thoroughness and quality. This is the only strong position for the profession to maintain, and it ought to be united in this position.

HOW SHALL ILLEGAL PRACTITIONERS BE DEALT WITH?

A difficult problem is presented with reference to the practice of medicine by unauthorized or illegal practitioners or persons within our borders, that requires to be met and dealt with by this society very promptly. The Medical Society of the County of New York employs an attorney, who keeps careful watch of its affairs and brings prosecution against these offenders; so, too, with many other medical societies in counties having large cities that offer an inviting field for advertising doctors. The result of all this is that these pretenders flock to Buffalo and infest our community, leaving a disgraceful taint upon the legal profession of medicine. Last year unfortunately Dr. Storck, the efficient Chairman of the Board of Censors, tendered his resignation, which has lain until the present time. Some other members of the board have either formally resigned or declined to act, so that it has been impossible for this society to reach these offenders in an official manner. Lately, it has come to my knowledge that pretenders and illegal practitioners have been carrying on their work in the eastern portion of the city. Through the efforts of Dr. J. F. Krug, a man pretending to practise medicine has been brought to the bar of justice on the verdict of a coroner's jury, which is the first circumstance of the kind within my knowledge or recollection. Lest this opportunity to reach crime should be lost, I authorized Dr. Krug to act for the society in the prosecution of the case, thus assuming the functions of acting chairman of the Board of Censors for the particular purpose in view. I also said to Dr. Krug that he must not involve the society in expense beyond twenty-five dollars without further authority from the society itself. Dr. Krug is prepared to make a report of his acts under this appointment, and I hope upon hearing it the society will feel it a duty and a pleasure to confirm my action. The responsibility was assumed in an emergency about three weeks ago, and, unless it had been taken, the offender probably would have slipped through the meshes of the law, because of the fact that there was no authorized person to follow up the case and present the proper proof to the prosecuting attorney.

In this connection, it comes to my mind, that it would be expedient for this society to employ an attorney to represent it in matters of the kind described. It seems to me that this might be done with a small outlay of money, which would give the society

the prestige of an official representative in the courts to look after its interests. If it were once known that we were not only a progressive association of medical men, but that we were aggressive as against all outside illegal practitioners, and that we propose to assert our aggressiveness through a regularly employed attorney, quacks would be slow to enter the boundaries of Erie County, and the dignity of our profession would gain thereby immensely. I offer this suggestion for your thoughtful consideration.

TRIBUTE TO DR. EDWARD STORCK.

Before ending this portion of my discourse permit me to call the attention of the society to the fact that for twelve years Dr. Edward Storck has served as the indefatigable chairman of the Board of Censors, and his name, during all this period, has been a terror to quacks and impostors who have sought to plant themselves in our midst. In the execution of his duties, it is more than probable that he has incurred the displeasure of many individuals, some of whom may even hold memberships in this society. The task has been a thankless one, and but few men could have been expected to hold the office so long and carry out its functions in so creditable and fearless a manner as has Dr. Storck. It seems to me that the least this society can do is to place upon its minutes some form of appropriate recognition thereof and appreciation therefor.

THE SECRETARY AND TREASURER OUGHT TO BE PAID.

In order to render the machinery of the society efficient, it seems to me that a small salary should be paid to both the secretary and treasurer for their work, which is concededly of an important character. The discipline of the society is maintained largely, if not absolutely, through the efforts and labor of these two officers. The secretary must not only keep a record of the work done, but he ought to be willing and able to stimulate effective and interesting scientific programmes for our regular meetings. The treasurer must be active in order to secure dues from members, and it ought to be part of his duty to notify new residents in regard to the necessity of becoming members of the society. If he does all this work properly he can easily save more than a salary of fifty dollars, which sum I recommend be paid to both the secretary and the treasurer for their services each year. This can be done by resolution at each annual meeting, and I hope the proposition will meet with the favor of the society, for in order to obtain good work we must pay a reasonable price for it.

DELEGATES TO THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

In the selection of delegates to the Medical Society of the State of New York, this body, now entitled to six, can afford to send only such men as manifest an interest in the advancement of the science of medicine, and who will engage to attend the meetings of the State Society as interested official representatives of this society. After three years' service as such, delegates become entitled to permanent membership in a medical body which is concededly the first state medical society of the land.

It seems to me that care should be exercised in the selection of these delegates, so that the society may not be unrepresented nor without a full delegation at any meeting. Under the rules of the State Society, Erie County is now entitled to eight delegates, namely, six representing the Medical Society of the County of Erie, and one each from the medical colleges. If the Buffalo Academy of Medicine is an incorporated society, it also is entitled to representation. There are but fourteen permanent members of the Medical Society of the State of New York who reside in Erie County—too small a number for so large and intelligent a constituency. May I not indulge the hope that Erie County will take pride in increasing this membership as fast as it is permitted to do so under the rules?

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

The Medical Society of the County of Erie is expected to subscribe to a number of volumes of Transactions of the State Society equal to five times its representation by delegates. There is an order of the society requiring the Treasurer to attend to this duty every year. The object of this subscription is to supply each delegate, as well as each officer of the society, with a volume, and also such incorporated libraries as exist in the county. The surplus volumes are issued to any member who may take sufficient interest to desire a volume, and who may make an application to the Treasurer for the same. The book is handsomely printed and bound, averaging about 500 pages each year, and it is offered to general purchasers for the sum of $1.50 each. It is doubtful whether more interesting and instructive medical literature is compressed between two book covers, for the same price, than in this annual volume. Attention is invited to the fact, because it is believed to have been overlooked by many who really desire to get these books. This

society is an integral part of the State Society, to which it owes allegiance, and is proud to affirm its fealty to such a noble parent. Let us attend its meetings and obtain its Transactions. The one will serve to make us better doctors, the other to enrich our libraries.

A PROFESSIONAL HOME SUGGESTED.

In a large county like this, one so rapidly increasing in its population and wealth, it seems to me a matter of great regret that the medical societies have no permanent professional home or abiding place. With a number of medical bodies meeting frequently, it seems unfortunate that some must meet in one place and some in another, hence have their books and records scattered in different places. If the several societies would agree to group together in a single place of meeting, which could be rented for a reasonable sum, and where library books and magazines could be found, it would serve to improve the *esprit de corps* of the profession, as well as the social and personal relations of its members to each other. It would be a gratification to many men who have the interest of the profession at heart, to see even such a temporary home leased and established on the basis suggested, which would probably lead to one of permanency in the very near future. This is ot by any means a new thought nor is it propounded as such, but again I invite your attention to the serious consideration of this question, and hope that the initiative of what will lead to the perfection of this plan will be taken by this society. The jurisdiction of this body is limited only by the boundaries of the County of Erie, and such a home would be a pleasant place for the members residing outside of the City of Buffalo to visit whenever they came to town, where they could find a sitting-room for reading, writing, or visiting during unoccupied hours or while waiting for outward-bound trains.

It is quite as much in the interest of the members from the towns that the suggestion is made, as in that of the city contingent, and I hope it will crystallize into a substantial and accomplished fact before many moons have passed.

THE PAN-AMERICAN MEDICAL CONGRESS OF 1893.

Among the medical meetings appointed for the present year, the chiefest, and that of the most absorbing interest, is the Pan-American Medical Congress, to convene in Washington, Septem-

ber 5, 6, 7, and 8, 1893. At the instance of Dr. Charles A. L. Reed, of Cincinnati, a Committee of Organization, consisting of one from each State and Territory of the United States, with power to perfect the Congress in all its details, was appointed by the American Medical Association, at its Washington meeting, in 1891. This committee held its first meeting in St. Louis, in October of the same year, and laid the foundation for the complete organization of the Congress, by electing Dr. William Pepper, of Philadelphia, President; Dr. Charles A. L. Reed, of Cincinnati, Secretary-General; and Dr. A. M. Owen, of Evansville, Treasurer. Twenty-two sections have been organized, officered by Executive Presidents, English- and Spanish-speaking Secretaries, Advisory Councils, and Honorary Presidents. Vice-Presidents have been chosen from all the constituent countries, and nine Assistant Secretary-Generals have been commissioned. The Congress has been incorporated, a Board of Trustees chosen, and all the necessary steps taken to make the organization legal, strong, and efficient. Congress has authorized the President to invite the constituent countries to send representatives, and it is expected that an appropriation will be made to meet the expenses incident to their entertainment. The preliminary announcement of the Congress, a handsome duodecimo brochure of sixty-four pages, has been issued, a copy of which can be obtained by any physician on application to the Secretary-General.

Every physician of this society is eligible to join the congress, which he can do upon remitting to the treasurer a subscription fee of $10. This will entitle him to all the publications of the congress, including its transactions, which will make several octavo volumes. At the semi-annual meeting of this society, held June 14, 1892, Dr. Reed, the Secretary-General, was present and gave an account of the objects of the congress and the methods of its organization. Many of you, no doubt, will recall his remarks on that occasion.

The following-named gentlemen, residents of Erie County, have been appointed to official positions in connection with the congress, to-wit, Dr. John Cronyn, member of the National Committee of Organization; Dr. A. A. Hubbell, member of the Auxiliary Committee; Dr. William H. Heath, Assistant Secretary-General and Spanish-Speaking Secretary of the Section on General Surgery; Dr. Matthew D. Mann, Honorary President of the Section of Obstetrics; Dr. Henry R. Hopkins, Honorary President of the

Section on Hygiene, Climatology, and Demography; Dr. Charles Cary, Honorary President of the Section on Therapeutics; Dr. Roswell Park, Honorary President of the Section on Orthopedic Surgery; Dr. John Parmenter, Honorary President of the Section on Medical Pedagogics, and Dr. William Warren Potter, Executive President of the Section on Gynecology and Abdominal Surgery. This is a most liberal recognition of the members of this society, and speaks well for the influence which this body exerts in reference to medical affairs of national importance. I hope a considerable number of its members will promptly join the congress by sending their subscription fee to the treasurer, and thus testify their appreciation of its acts as well as their sympathies with its purposes.

MISCELLANEOUS AND CONCLUSION.

It has been said that interest in the meetings of this society flags when there is no contest or quarrel; on the other hand, it has been said also that interest will flag unless something is done at the meetings besides the discussion of questions of medical policy and politics, and to wrangle over personal and individual interests. Here are two distinct parties, one crying out for an improvement in the scientific professional work to be done by the society at its meetings, and another taking no interest in its affairs unless there is a quarrel on.

There is no doubt but that the functions of this society are in part of a legal nature, where all questions of medical polity relating to the profession in this country may and ought to be discussed. There is no doubt, also, but that above and beyond this there is a large opportunity to hold meetings full of scientific interest and value. Acting upon this belief the committee on programme prepared an excellent one for the June meeting, in which nothing was done, either at the morning or afternoon sessions of over three hours each, but to discuss questions of a scientific nature. At this annual meeting some business must needs be done, but there is ample time for other professional work. Let us then pull together as a body of learned, professional men, and make the society one of strength, equal to the importance which the territory of its jurisdiction holds in the State.

Let each member feel interested in all its affairs, whether of a professional or business nature, and bear equally his or her part, in any capacity in which he or she may be able to serve. But, more

than all, let all take a personal interest in its meetings, and come with regularity and a determination to watch its affairs, and to give up the little time which is required therefor during each year, with cheerfulness and good nature.

It may be that it would be wise to hold quarterly meetings,—a proposition which I submit for your consideration. These quarterly meetings could be made of unusual scientific interest, and the men residing outside of the limits of the city could, and ought to, contribute their share to the successful holding of any and all meetings that the society orders.

Into your hands, gentlemen, I commit all these subjects, in the belief that my duty on this occasion has been better performed by making the essential interests of the society a subject of consideration, rather than detain you with a professional or scientific paper. The Committee of Arrangements has prepared an interesting group of these for your consideration, and I shall be most happy to bear my part in making the day one of interest and instruction to the members here assembled.

In conclusion, I beg you to accept my most grateful thanks for the honor you have conferred upon me in calling me to assume the functions of your chief executive officer. It is an honor that I especially appreciate as an expression of confidence on the part of my professional friends at home, and of the esteem that they hold me in. My only regret is that I am not able to give a better account of my stewardship. I pray you to attribute my shortcomings to errors of judgment and not of heart, and to regard me now and evermore as your faithful and obedient servant.

284 Franklin Street.

CLINICAL REMARKS ON CASES OF CONGENITAL SYPHILIS AND RICKETS.[1]

By A. CLIFFORD MERCER, M. D.

Of the two cases of scabies you saw in the dispensary a week ago, I shall say nothing beyond what was said when the cases were before you. Of the case of spinal curvature, I shall say only a few words presently. These cases belong to classes of disease which will be fully considered in the departments of dermatology and surgery, respectively.

1. Seen in the Children's Department of the Syracuse Free Dispensary, October 15, 1892: before the third-year class of the College of Medicine, Syracuse University.

I ask you to recall a puny infant of two months, lying in its father's arms, and evidently, from its general appearance, severely ill. You observed its marked anemia, with a slightly ashy tint in its face. You saw in the diaper, as it was removed, a semi-fluid green stool, containing lumps of curdled milk—irregular, white cheesy masses, about the size of peas. On the buttocks, perineum, and about the pudenda you saw a uniformly raw and irritable-looking purplish redness which at its margin on the thighs broke up into more or less discrete small papules. You saw faint remaining stains of a more extended eruption which, I told you, was previously present down the legs. The small papules of the more extended eruption were very symmetrically distributed: on the right calf and heel they were confluent and formed patches corresponding in situation with similar patches on the left calf and heel. Each of you felt of one of the several places in the lateral occipital regions where there seemed to be a hole in the cranium, the bone being replaced by a stiff parchment-like membrane which yielded to gentle pressure and suddenly sprang back as the pressure of your finger was removed, a phenomenon resembling that which sometimes occurs in a grosser way when you press in sharply the bottom of a tin pail. The condition, you were told, was that known as craniotabes, a word meaning cranial wasting: a condition generally believed to be a pressure atrophy due to compression of the soft cranial bones between the developing convolutions of the brain on the one side and the pillow or nurse's arm on the other. This is not a perfectly satisfactory belief: for in some cases the situation of the atrophy would necessitate the presence of some other external pressure, or that the infant rest standing on its head (Dr. A. F. Voelcker, London). You perhaps noticed that during all your handling the infant was but little disturbed, a common indication of severe illness in infants. You did not detect any other sign of disease by your direct examination. From the mother we learned the rash appeared about a week after birth and that the infant had been badly fed on bottle food. From the father and mother, questioned each alone, we could get no history of syphilis in themselves or in their other children. Nevertheless, the case had been recognized from the first as one of congenital syphilis. At the time you saw the case, the diagnosis was confirmed by the improvement which had come as a result of mercurial inunction.

The chief interest in the case lies in the fact that the history

got from the parents was of so little value that the diagnosis had to be made on signs, independently of any history. The eruption alone was sufficiently characteristic to establish a diagnosis. The anemia with an ashy tint and craniotabes are met with in other diseases. The anemia might have been due to the indigestion and chronic diarrhea of which we got a history and of the existence of which we saw evidence in the diaper. Craniotabes for nearly forty years after its definite recognition by Elsässer in 1843 was regarded as a lesion peculiar to rickets. Toward the close of that period, the investigations of M. Parrot[1] in one direction and those of Drs. Lees and Barlow[2] and Dr. Carpenter[3] in another direction showed syphilis to be a large factor in the causation of craniotabes in rickety infants and that syphilis alone caused the lesion in infants not rickety. Further, craniotabes, but much less marked, has been found in apparently healthy young infants. At present then *marked* craniotabes may be regarded as a sign of either syphilis or rickets; but the more marked the craniotabes, the more surely should you consider the possibility of the presence of con genital syphilis, whether the infant be rickety or not. Our case was young to have rickets, and we detected no sign peculiar to rickets. On the other hand, the infant's age—two months—is one at which congenital syphilis is particularly likely to show itself Infantile syphilis is more common before the fifth month; rickets is more common after the fifth month. In fact, ordinary rickets is rare before the fifth month. The craniotabes in our case was exceptionally well marked and, especially as there were no signs peculiar to rickets present, was a sign of congenital syphilis. The anemia, the ashy tint in the face, the general appearance of serious illness, as well as the infant's age, were in harmony with the diagnosis of congenital syphilis.

Family histories in cases of congenital syphilis are often negative for one reason or another. Mothers who are not syphilitic may give birth to infants who inherit the taint from the father. Under such circumstances the mother who usually brings the infant to the dispensary and knows nothing about her husband's taint gives a clean history. However, in our case we had an opportunity to interview the father, but with a result as negative as

1. Maladies des enfants. La syphilis héréditaire et la rachitis. Paris, 1886. Transactions of the Pathological Society of London, Vol. xxx., 1879, p. 339.

2. Transactions of the Pathological Society of London, Vol. xxx., 1879, p. 332; Vol. xxxi., 1880, p. 236; Vol. xxxii, 1881, p. 323.

3. St. Thomas Hospital (London) Reports, Vol. xix., 1889, p, 235.

that got from the mother. The case illustrates the possibility, as well as the necessity which occasionally occurs, of arriving at a diagnosis in cases of infantile disease with little or no aid from histories.

This can only be done by means of close observation, careful thought and large experience, if it is to be done successfully. Enthusiasm, opportunity, and industry sometimes develop ability in objective diagnosis to an almost marvelous degree. To try to observe closely and fully, to interpret the subjective meaning of an infant's behavior — for the infant feels and communicates its feelings to those who understand infantile modes of expression — and to develop or recognize and interpret physical signs of disease in infants and children are particularly the objects of our work together. You will soon note that in developing or recognizing such physical signs the same means are used with which you are acquainted in your clinical work among adults, but that these means usually have to be more carefully and delicately employed and the results are frequently somewhat different and require a somewhat different interpretation. Therefore, you see, there are excellent reasons — a necessity, in fact — for giving some special attention to clinical study of pediatrics. We can, at least, have an ambition to be able to recognize the presence of many of the diseases of infancy and childhood. This ability can only be acquired by practice afforded in some such work as we have in hand. We can have a further ambition to be able to detect the presence of many of the diseases of infancy without asking a question. The consideration of all you see, hear, feel, and smell may be so methodical, full and effective that the answers to your questions will appear to be only items of detail in the broad and pretty accurate idea of the disease you are able to get independently of questions. Such ability has been acquired and is a possibility for which each of you may strive.

However, you will be continually asking questions and using the answers you get to aid you in arriving at a diagnosis. Frequently you will find such answers of great value; at other times, of no value. You will find a part of our work to be learning what questions to ask, how to ask them, and what weight to give the answers as evidence in diagnosis. The recording of the history of the present illness and of the family and its hygiene — so far as they relate to the case — is a matter of routine in hospital work and is usually completed as fully as possible before the direct

examination is begun. Sometimes the fullest record and most careful direct examination will make you little wiser about the nature of the case than you were before; but at such times you may have for your consolation knowledge of the fact that even men of exceptional experience and ability from time to time meet with cases which baffle them.

Let us now recall the next patient, a fairly well nourished infant of eighteen months. We watched it sitting on its mother's lap until we saw its head droop—as if the muscles of the neck were too tired to hold the head erect. On throwing off its clothing, you saw the shoulders thrown forward and drooping and the spine rounded to give the trunk as tired a look as that presented by the drooping head. You saw the enlarged wrists and felt the enlargements at the junction of the ribs with the costal cartilages, the so-called "beads" or "rosary." Your attention was called to the open fontanelle. You noted the presence of only ten teeth, the anemia, the flabby muscles, the proportionately enormous globular abdomen. Some of you felt with what ease the femur and tibia slipped about on one another, giving you an idea of the looseness of the infant's joints. The mother told you the infant had walked, but was too weak to do so when she brought it before you. The mother gave us a history of wretched feeding, the infant having been fed anything the family had and at any time of day or night, a history of diarrhea and a history of whooping with a whoop not quite like that she heard when her other children had whooping cough. We did not hear the cough, but you were told the so-called whoop was probably the crowing of laryngismus stridulus. You noticed the infant was inclined to be happy and play. A few weeks previously it took no interest in anything and was still weaker. The infant had improved since it had been fed regularly on a diet limited to plenty of milk, soft poached eggs, bread and gravy, simple puddings and an emulsion of cod liver oil and beef peptonoids.

You were asked to write on slips of paper the name of the disease before you. Three-fourths of the class, to my surprise, handed in slips on which the word rickets was written. I knew you had not had diadetic lectures on pediatrics, and that you were attending your first clinic in pediatrics. It appeared later that your diagnosis was the result of the practical application of your theoretical knowledge of rickets acquired in your pathological work.

You have now seen clinically, as well as pathologically, that

rickets is not simply a disease of bones. It is a general disease. You have had evidence in your first case that it involves bone-forming cartilage, ligaments, muscles and other tissues. The affection of bone-forming cartilage was seen in the enlarged wrists and the beaded costo-chondral unions. The lax ligaments and flabby muscles permitted the drooping of the head and trunk and the looseness of the joints generally. The abdominal walls were so weak as to give before the pressure of gas in the alimentary canal, in turn due to decomposing food and functional disease of the stomach and intestine. The anemia was a sign of abnormal blood. The laryngismus stridulus was a spasm sign, one of several which occur in rickets as a result of a functional derangement of the nervous system.

The case presented some of the notable signs of rickets; others which were not present, or not detected, you will see in other cases. For instance, when we come to investigate the case of lateral and rotary spinal curvature in a somewhat stunted-appearing girl of four years, whom you saw for a few moments only, I think we shall find the scoliosis to be a deformity due to rickets of an earlier year; and we may find little remaining of other signs. You will be disappointed if you expect many cases to present to you the full picture you read about. One case will present an apparently accidental selection of signs from the full picture, and another case another selection. You will meet with a variety of selections, or groupings of signs, in different cases of the same disease; and you will, probably, meet with many cases before you will see all the phenomena of that disease, and perhaps you will never see all of them. You will learn that clinical realities are not exactly like book pictures. Only such clinical realities, however, are the objects of our study, rather than the full pictures drawn from the accumulated records of medical literature. The latter will be presented to you in a course of lectures on Pediatrics by Prof. Plant whose lectures, I may say by the way, have long been regarded as among the best given in the Syracuse school. Our work is but supplemental to that course.

Both cases upon which I have briefly dwelt in these fragmentary remarks illustrate the principal thought I wish you to take away with you; and that thought is that it is possible to arrive at a diagnosis in some cases of disease in infants without asking a question. Our questions in the case of congenital syphilis got us answers of negative value, and we were obliged to arrive at a diag-

nosis without aid from those answers; and, although our questions got us useful information regarding the case of rickets, we could have arrived at a diagnosis without such information — without, in fact, asking a question.

324 Montgomery Street.

Translation.

SYPHILIS AND MARRIAGE.

By PROF. I. NEUMANN. Translated from *Wiener Medizinische Wochenschrift*, No. 23, June 4, 1892.

By G. A. HIMMELSBACH, M. D., Buffalo, N. Y.
Late Resident Physician to the Buffalo General Hospital.

SHOULD A SYPHILITIC PERSON BE ALLOWED TO MARRY? AND UNDER WHAT CIRCUMSTANCES IS MARRIAGE ADMISSIBLE?

I shall enter upon the discussion of a question which, according to Fournier, is, to a prominent degree, quite perplexing. It is a subject which embraces a number of the most diverse, difficult, delicate, and dangerous problems by which family affairs are often surrounded, a question which demands the greatest responsibility of a physician,—in fact, there is hardly a theme, or subject within the whole domain of medicine of such great importance to the individual, as well as the family, or even the state, as the one just mentioned to be treated upon.

Syphilis does not alone endanger the health of a married person; it is even more dangerous to the vital conditions of the offspring, and it is the latter direction in which it especially develops its destructive and serious consequences. A very large proportion of abortions have their origin in the syphilitic state of a person. A great many children born of syphilitic parents bring syphilis into the world with them, or else they succumb to it a short time after birth, while, indeed, others may remain free from the appearances of the disease, and yet showing weakness of vitality, general degeneration, and will be carried off in a short time.

Upon the basis of observation, Fournier reports having seen 500 married people in a syphilitic state, by which there were 1,129 births presenting manifestations of the disease, and the rate of

mortality of the offspring of these syphilitic parents was forty-two per cent. (*i. e.*, of all births), but according to further observation by the same author, among the poor patients who were delivered in the hospital St. Louis, (France,) this rate of mortality increased to eighty-four per cent., and according to Le Pileur, it reached the awful number of ninety-four per cent.—yes, even ninety-six per cent.—which disease, with a still increasing number of cases, was almost productive of a social panic. There is no wonder that the question has long since aroused the attention of the medical world, without arriving, up to date, to definite results. The great number of medical men who busy themselves with this subject, arrive at the most diverse and partly direct contradictory results and views. While Fournier, for instance, in reference to the matter of allowing matrimony, stands alone, with his pessimistic views, and demands, at least a space of three or four years before matrimony, and, furthermore, he demands from one-half to one year's time in which there is no appearance of the disease, and even then only allows matrimony when the disease was a mild attack, and which gave way easily to medical treatment, and, finally, if the respective individual has for three years gone through a thorough, systematic, intermittant treatment of six months each, with mercury and iodides.

Hutchinson, in expressing himself in reference to this subject, is much more sanguine. He allows a patient to marry after two years, and further states that he never has found any reason, in spite of numerous observations, to repent for this concession,—as mothers and children had always afterward been free from the disease.

Boeck even allows a patient to marry, although he had presented manifest symptoms of syphilis only a few months previous, and says he has never yet received reproach from any such cases.

Wolff and Cullerier finally deny altogether the infection of syphilis from the father, and contend that only when the mother suffers from the disease can the offspring (children) inherit it.

Now, then, the question: What standpoint shall we take in the midst of so varied and manifold views? Before I enter upon the response to this question, I shall, in the first place, introduce a number of cases as illustrations, and which will present questions for further discussion and explanation later.

Case I. A youthful, strong individual had initial lesion three years ago, followed by eruption, and which disappeared after thirty applica-

tions of Ung. Hg. Since then no repetition and no sign of syphilis has appeared.

Case II. A man of middle age, lives in good social circumstances. The initial lesion and exanthem appeared two years ago ; then used mercurial inunction and disappeared. Six months later the exanthem reappeared, and a second use of the inunction caused it to disappear. Has been well since then, except has suffered from psoriasis of the ear, which still exists. Besides this psoriasis, and a moderate swelling of the lymphatic glands, there is no sign of the disease.

Case III. A man forty years old, extravagant liver, heavy smoker, and toper, and inclined to sexual excesses. Initial infection four years ago ; mercury treatment ; cure. In the course of the first two years he had repeated outbreaks of the eruption, but, finally, all disappeared with mercury treatment. Since then, free from repetition, free from psoriasis of ears, hands or feet, but swelling of lymphatic glands on both sides.

Case IV. A female patient, twenty years, belonging to the poor class ; initial infection and exanthem three years ago ; mercury treatment ; cure. Since that time several small nodules have appeared on the genitals. Mercury treatment given in some form or other. The past year no repetition, no return, and, at present, no sign of syphilis, except multiple swelling of glands in groins.

These different cases in their reference to the individual suffice to show that it is difficult, yes, is even impossible to lay down general methods of treatment, by which we may be directed under all circumstances and in all cases. The disease may appear in such a variety of forms. It is more natural, then, that in general the medicinal treatment must be chosen essentially according to the individual, and not to follow one definite scheme or plan, but to treat according to the nature of each individual case.

It is also understood, and has been proven daily, by experience, that syphilis of one (husband or wife) in matrimony reflecting or producing its effects upon the other as well as upon the offspring, must be of different form, and varies according to the sex, age, constitution of the diseased person, and, also, with respect to the form, appearance, and age of the respective infection.

In the first place, let us make a difference between syphilis in man and syphilis in woman. It has, indeed, been shown by experience, and to great satisfaction, that, on account of the greater number of cases in which man brings syphilis into matrimony, (according to Fournier, 487 out of 500 cases,) syphilis of the father, it is, which effects the most serious results upon the wife and the

offspring; this statement, however, only refers to the social relation, and not to the seriousness or gravity of the disease of the individual. On the contrary, syphilis of the mother, though somewhat less in the better society, shows itself by its effects upon its offspring by far more serious and dangerous perpetuation. The reasons are well defined. Syphilis in man is communicable in a two-fold direction:

1. By infecting the wife, and by her communicating it to the child.

2. By infecting the child alone, in some way, without affecting the mother, who later may exceptionally be infected by the child.

In reference to the first group of cases mentioned, the conditions of development of the disease in the child are the same as they are in the mother, who is directly infected. Inasmuch as the infection of a wife, through a syphilitic diseased husband, results only in a part of all the cases, the proportion of percentage of the offspring who are thus infected is much more favorable than with the mother who is directly infected by the disease.

The second class of cases comprises those in which the child is infected with the disease through the father, while the mother seems to remain healthy (intact, so to speak). To these observations belong those cases in which the father presents at a glance a variety of positive advanced symptoms; consequently, the disease is contracted through sexual intercourse, as the sperm of the father contains the syphilitic poison. In this case the prognosis is more favorable to the child than when the mother suffers from tertiary, or constitutional, syphilis. The harmful influence and its consequences are effected, therefore, only at the act of coition. From that very moment no more syphilitic matter enters the fetus by the placental circulation; it, therefore, presents a by far more favorable chance than the fetus of a syphilitic diseased mother, the development of which, in case of the latter, is to the highest degree impeded by the constant supply of syphilitic infected blood; that the blood of the mother has an influence of this kind upon the child, is purely shown by the syphilitic state in which we find children that have been exclusively infected by the blood of the mother. I shall present reasons further along, to show that syphilis in women is more dangerous than that of man. A few statistical points may find place here; they quite agree with the aforesaid statements.

Fournier collected statistics of 500 births where the father was diseased ; thirty-seven per cent. of which inherited the disease, and twenty-eight per cent. died ; and where the mother was diseased, eighty-four per cent. inherited, and sixty per cent. died ; and where both parents were diseased, ninety-two per cent. inherited, sixty-eight per cent. died. This shows that the contagiousness and the mortality were more than two-fold when the mother was infected than when the father. The following figures, which are the result of observation for several years at my own clinic, also show the disastrous influence on the part of the mother upon her offspring. Of 123 mothers treated in my clinic, and who were diseased before conception, 208 children were born ; of these only sixty-one escaped the disease, (*i. e.*, were healthy,) while 147, or over seventy per cent., of the children inherited and suffered from the disease. Seventy-one of those mothers were in the first or primary stage, and these gave birth to ninety-six diseased children ; of these ninety-six sick children, only twenty remained healthy afterward, or about twenty per cent. Fifty-two mothers who were in the third tertiary stage, gave birth to 109 diseased children, of which forty-one remained healthy, or little over thirty-seven per cent.

The last mentioned figures lead us now to a certain point which is of great importance as regards the influence of syphilis of the father and of the mother. I mean by that, the degree of infection of the child varies according to the form or stage of the disease found in either or both sexes. As it is well known, there are in most cases an early so-called secondary stage in which the most important sign is the moist chancre, which for infection of the disease from one person to another is the most dangerous. The infection in most cases takes place at coition, from a fresh or late efflorescence, or even by a kiss through fresh erosions of the mucous membrane of the lips.

The products of a syphilitic ulcer are equally virulent in both sexes—with women, especially, at the sexual part, and with men, the mucous membrane of the mouth. To these individuals we have to direct our special attention, and, particularly, to those who wish to marry within that dangerous period, it is necessary to promptly interdict, not only on account of the danger of infection of one person to another, but still more on account of the exceeding great danger of transmitting the disease to the offspring.

As these efflorescence make their appearance in the early part

of the disease, it is evident that especially the first three years of the disease must be considered the most dangerous, and in which marriage should not be allowed, and of these three years, it is the first year, according to Fournier, in which the mortality reaches one-half the whole number of cases, while, according to the same author, the mortality of the second year, amounts only one-third of the first; that of the third year one-half of the second; and that of the fourth year is less than half of that of the third; while the degree of virulence of the second stage of both sexes seems to remain very nearly the same as regards their results. The results of a later so-called third stage of the disease are quite different, as regards the degree of virulence, upon man and woman, as we have before alluded to in the above mentioned statistics, which show that children born, in which the mother was in the third stage of syphilis, the rate of over sixty-three per cent. inherited the disease. The circumstances, when the woman is the one diseased, are by far more unfavorable than when the man is diseased, not but what the danger of infection by man is at least just as great,—yes, probably far greater than with the woman,—but in case of the latter the growing fetus is essentially in more unfavorable surroundings or circumstances. In the woman, we have also a third stage, which is much more dangerous to the offspring than the third stage of man, and so we see the results of marriages in which the woman alone is specifically infected, that the most part of the fetuses die in utero, or are delivered with extravagant marks of the disease, or if they are born without such marks, in spite of all that can be done, will die in a short time of the disease or a general grave dyscrasia. Therefore, matrimony can be sooner allowed to man who has been infected by the disease than woman, because the forms or stages of the disease in the latter causes a hindrance to matrimony, while with the former it does not necessarily interfere; with a woman, it will be necessary that the infection must have long since passed away before matrimony can be allowed to her, while this is not the case with the man.

The moist chancre is found more frequently and is more permanent upon the sexual parts and organs in woman than with man, with whom we have already seen the sexual parts are not so often the seat of infection as the mucous membrane of the lips and mouth, hence, the former are a more important source of hindrance to matrimony.

It is, of itself, understood that the longer the lapse of time from

the moment of infection, the more favorable are the circumstances, and to draw a fine line of mathematical exactity, no one is able to do. It is so indefinite, it fluctuates, or varies according to the character of the disease and the constitution of the individual, so that it will not be out of place to allow matrimony under some circumstances after an elapse of one and one-half to two years, while with others it cannot be done with safety short of ten years. Nevertheless, it is of importance, and to the highest degree of great responsibility on the part of the physician, to consent to the points which Fournier has laid down. I should like to suggest, for the great majority of cases, a space of three years from the time of primary infection, and at least one full year free from all appearances of the disease. When this condition of affairs is found to exist, without any symptom of the disease to be seen, and from the beginning a faithful and long treatment was pursued, matrimony may be allowed to a man, not, however, without making known to the candidate the possible consequences of his matrimony. One should also be very cautious to state a favorable result with surety, and to take upon himself the responsibility of all the consequences of such a step. Besides this, the respective individual should be advised, before entering into matrimony, even when apparently free from syphilitic appearances, to undergo a systematic antisyphilitic treatment, and, indeed, if possible, the inunction treatment. This measure with men who are not candidates for marriage, at a time when no symptoms are present, is unnecessary. Still, it appears necessary when the matrimonial step is taken to continue this treatment. I speak of such cases which are cited as manifold in medical literature, in which, after matrimony, those men who had been syphilitic for a length of time, still at the time of matrimony presented no sign of the disease; year after year one abortion followed the other, and no children of health and vitality were born until the respective husband had undergone a course of treatment. In general, the question as to whether the respective person had been rationally treated when in the syphilitic state, is one of the most important in medical practice, as it has been statistically shown and daily approved by testimonials, that after a thorough treatment, the dangerous results of the disease appear by far more seldom and with less intensity than when those who had either not been treated at all or, if so, very carelessly.

When Fournier, however, goes a step further and demands, as a

pre-requisite to matrimony, that the respective patient has to undergo, for several years previous, a prolonged intermittent treatment, I claim this complicating treatment is superfluous and molesting to the individual, and is injurious to the same, not only physically, but even mentally. In order to attain a proper idea as to whether the respective individual should marry or not, I think it is first and most important to state whether and in which manner the same is infected by the disease at the time. This statement Fournier thinks is quite impossible. How is it, then, when the disease has been energetically fought against for a long time, no trace or existence of the disease can be found anymore? That such cases happen where syphilis has been caused to disappear entirely, is shown by foreign observations as well as our own.

I am, at this moment, in the position to name more than sixty cases, in which, after only one course of treatment, partly in my own clinic and partly in private practice, who, after a space of from one to sixteen years, introduced themselves at my clinic again without any sign of syphilis. About a certain number of cases I am unable to furnish the necessary figures. A by far greater number of cases may have disappeared from my memory, from the fact that I never saw the patients again.

137 W. Tupper Street.

Society Proceedings.

THE MEDICAL SOCIETY OF THE COUNTY OF ERIE.

Annual Meeting, January 10, 1893.

Reported by ELI H. LONG, M. D., Secretary.

MORNING SESSION.

The meeting was called to order in the Y. M. C. A. Building, at 10.30 A. M. The President, Dr. William Warren Potter, in the chair.

The minutes of the previous meeting were read and approved.

The Committee on Membership reported favorably upon the following-named candidates, who were duly elected members of the society, namely: Eleanor McAllister, Loren H. Staples, Carlos E. Bowman, Mary T. Greene, H. C. Leonhardt, Jane W. Carroll, Robert S. Hambleton, Frank J. Thornbury, Henry F. Carter, and

Alfred E. Diehl. Those present were formally introduced to the society.

The Committee on Membership further reported the receipt of applications for membership from the following-named physicians: Francis T. Metcalfe, Franklin C. Gram, Clarence A. Tyler, James Stoddart, F. G. Moehlan, J. F. Whitwell, G. W. Wende, Duncan Sinclair, Geo. J. Hearne, Edward R. Wiser, Albert F. Erb, Harry Corwin Jones, Cyrus S. Siegfried, Chas. E. Long, Geo. A. Himmelsbach, Edward L. Frost, and E. J. Meyer. These applications were directed to lie over until the June meeting, under the rules.

It was moved by Dr. John Cronyn, and seconded, that the order of business be suspended so as to allow the President's address to be presented just after completion of the routine business of the society. Carried unanimously.

Dr. W. C. Callanan, of the Committee on Metric System, reported that little had been done by the committee since the last meeting, but urged a more extensive adoption of the system by members of the society.

The committee was continued by unanimous consent.

The Secretary moved that the new Committee on Programme be instructed to arrange as one part of the programme for the next meeting a discussion upon the Use of the Metric System. Carried.

The Treasurer presented his report, which showed a balance in the treasury of $256.99. The report was referred to an Auditing Committee, consisting of Drs. O'Brien and Callanan, and upon their favorable report as to its correctness, the report was adopted.

The Librarian presented his report as follows:

LIBRARIAN'S REPORT.

January 10, 1893.

To the Medical Society of the County of Erie:

On account of peculiar circumstances, your library is not meeting nor fulfilling the expectations of its usefulness.

During the year just closed, not a single application has been made to your librarian for information regarding, nor application for, books in it.

Had application been made for information, I could have given but little. I have searched for a catalogue, but have found none. On account of the limited shelf-room, the books are placed in positions most convenient for storing, and which are incompatible with convenience of

inspection or access. In this chaotic condition I have not been able to catalogue and arrange the books.

Your library should be in such location and condition that its contents may be available at any time. It goes without saying, that a practitioner having a case on which he wants information cannot spend time in hunting up the librarian or going beyond the center of the city.

I would recommend that this society instruct the librarian to find locations for its library and enter into negotiations regarding each, such negotiations to pend during report to and action by the society at its earliest possible moment.

Respectfully submitted.

CHARLES A. RING, *Librarian.*

The report was ordered received and placed on file.

Dr. M. D. MANN, in discussion of the report, suggested that the library be entrusted to the keeping of the University of Buffalo, with the understanding that the institution named keep up the files of periodicals now taken by the society.

Dr. H. R. HOPKINS moved, that in view of this offer by the University of Buffalo, the whole matter be referred to the new President and Librarian, with power to act.

Carried.

The Board of Censors being without a chairman, owing to the resignation of Dr. Storck, no regular report was presented. Dr. Walsh, of the board, and Dr. Krug, who had been appointed acting-chairman for a special purpose, made verbal statements concerning a case of irregular practice which was now before the grand jury.

The SECRETARY presented the resignation of Dr. B. H. Grove as a delegate to the State Medical Society, as he has been elected a permanent member thereof, which was accepted.

A motion having been made for the appointment of a Nominating Committee, the PRESIDENT stated that if there was no objection he would appoint a Nominating Committee of five members to nominate all officers, except President and Vice-President. Drs. O'Brien, Rochester, Coakley, Lapp, and MacPherson, were appointed as such committee.

The society then proceeded to the election of President and Vice-President. The CHAIR appointed as tellers, Drs. Walsh and Benedict. For the office of President, Dr. Cronyn nominated Dr. Wm. H. Gail, and Dr. Walsh nominated Dr. Jno. Parmenter. The ballot was then taken with the following result: Of the fifty-five

votes cast, Dr. Parmenter received twenty-nine, Dr. Gail received twenty-five, and Dr. Mann received one. Dr. Parmenter was declared elected.

For the office of Vice-President were nominated, Dr. Chas. G. Stockton, Dr. A. H. Briggs, Dr. Herman Mynter, Dr. Wm. H. Jackson, Dr. Jno. A. Pettit. Drs. Stockton and Pettit declined. A ballot was then taken with the following result: Of the fifty-seven votes cast, Dr. Jackson received twenty-three, Dr. Mynter received nineteen, Dr. Briggs received fifteen. No candidate having received a majority, the CHAIR ordered a second ballot, which resulted as follows: Of the fifty-seven votes cast, Dr. Jackson received thirty-two, Dr. Mynter received seventeen, Dr. Briggs eight. Dr. Jackson was declared elected.

Next in order, according to previous decision of the society, was the delivery of the Annual Address by the PRESIDENT, during which Dr. Cronyn was invited to occupy the chair.

After the address, Dr. STOCKTON moved the adoption of the following:

Resolved, That the thanks of the society are due and are hereby tendered to the retiring President, not only for the excellent address presented, but also for the efficient manner in which he has conducted the affairs of the society during his term of office.

Dr. CALLANAN moved to amend, that a copy of the address be requested for publication.[1] Amendment accepted and resolution unanimously adopted.

Dr. HOPKINS then presented and moved the adoption of the following:

Resolved, That the thanks of this society are due, and are hereby tendered, our distinguished member, Hon. Jacob Goldberg, M. D., member of the Assembly, for his efforts in preserving from pernicious amendment the wise and beneficent medical law of this State.

Resolved, That we also gladly recognize the valuable services, in the same most worthy cause, of the Hon. R. P. Bush, M. D., member and Speaker of the Assembly.

Resolved, That we call upon our members of Senate and Assembly to use all honorable means to guard and preserve our medical laws, as the promoters and protectors of the public health.

Resolved, That a suitable letter be sent to each county medical society, requesting them to urge the Medical Society of the State of

1. The President's address, under this order, is printed in full. See page 401, this journal.

New York to memorialize the Legislature to the end that, hereafter, in their own interests and in the interests of public health, no amendment to our medical law be received until the same shall have been considered by the Regents of the University and by the medical profession as represented in our incorporated State and local medical societies.

Carried.

The society then took a recess until 3.15 P. M.

AFTERNOON SESSION.

The afternoon session was called to order, at 3.15 P. M., by the President.

Dr. IRVING M. SNOW presented to the society a case of congenital heart disease.

Under Miscellaneous Business, Dr. C. A. RING presented and moved the adoption of the following:

WHEREAS, The office of Censor of a county medical society is of the highest importance to the public, affording it protection against the practice of medicine by incompetent or unscrupulous persons; and

WHEREAS, The office is interested in the highest medical education and proficiency; and

WHEREAS, The faithful performance of the duties of the office require that much time be given, for which there is no financial return; and

WHEREAS, In the exercise of the duties of the office, enmities form from which may come personal discomfort; and

WHEREAS, Perfect moral courage, integrity, and rectitude are required in action which may have for its consideration either a member of this society or some one at variance with the body-politic; and

WHEREAS, For the last twelve years, as member of the Board of Censors of this society, and as Chairman thereof, Doctor Edward Storck has filled the requirements of duties as member of that Board, and as its chief executive officer; therefore,

Resolved, That the Medical Society of the County of Erie hereby expresses its entire approval of the manner in which Doctor Edward Storck has discharged the duties of member of the Board of Censors, and as Chairman thereof.

That this society tenders Doctor Edward Storck a vote of thanks for the efficient manner in which he has served this society.

That this society learns with regret of his determination not to accept office on the Board of Censors.

That a copy of these resolutions, under the seal of this society, and of the signatures of its proper officers, be sent to Doctor Edward Storck.

That a copy of these resolutions be furnished the daily press and the publication thereof be requested.

Adopted unanimously.

Dr. Ring also offered the following :

Whereas, The institution and maintenance of quarantine is for the protection of the country from a common danger ; and

Whereas, All the people of the country, those of the interior as well as those on the borders or frontiers, are equally interested in the results of its efficiency, and should bear a proportionate share of its maintenance ; therefore,

Resolved, That the Medical Society of the County of Erie is in favor of a system of quarantine to be instituted and maintained by the Federal Government.

Resolved, That the delegates of this society to the Medical Society of the State of New York be instructed to bring the subject-matter of these resolutions before the Medical Society of the State.

Resolved, That to the members of Congress from this county a copy of these resolutions be sent, and that they be requested to use all honorable means to carry into effect such measures as may be in accord herewith.

Carried.

The Nominating Committee presented the following report: For Secretary, Dr. Eli H. Long ; for Assistant Secretary, Dr. Geo. F. Cott; for Treasurer, Dr. Edward Clark; for Assistant Treasurer, Dr. Eugene A. Smith ; for Librarian, Dr. Chas. A. Ring ; for Committee on Membership, Dr. John A. Pettit, Dr. Jas. W. Putnam, Dr. Geo. W. MacPherson ; for Censors, Dr. P. W. Van Peyma, Dr. Henry Lapp, Dr. J. F. Krug, Dr. J. H. Potter, Dr. A. L. Benedict; for Delegates to the Medical Society of the State of New York, Dr. Wm. H. Bergtold, Dr. Jno. J. Walsh, Dr. Wm. C. Callanan.

Upon motion by Dr. Hopkins, the report was adopted and the nominees declared elected.

Dr. Hopkins presented and moved the adoption of the following :

Resolved, That it is the sense of this society that the practice known as that of the Keely Gold Cure is not such as to claim the support of this society ; and that we do not look with favor upon the connection with these so-called institutes of members of this society.

Dr. Benedict moved to amend the resolution by adding the following :

Resolved, That this society expresses its disapprobation of admit-

ting to membership or continuing in membership, in County Medical Societies, persons connected with medical institutions which advertise in the daily press or in other ways than in journals intended to circulate among medical men.

Amendment adopted.

Original resolution adopted as amended.

The scientific programme was then taken up.

Papers upon Hydatid Disease were read by Dr. Roswell Park, Dr. H. U. Williams, and Dr. Herman Mynter.

The following members led a discussion upon the Relation of Gonorrhea to Pelvic Diseases in Women: Dr. M. D. Mann, Dr. M. A. Crockett, Dr. C. C. Frederick. The discussion was also participated in by Drs. Mynter, Rochester, Hayd, the President, and Pryor, and closed by Drs. Mann, Crockett, and Frederick.

Dr. R. S. Myers presented the following obituary notice of Dr. Lewis C. Carmer:

MEMOIR OF DR. LEWIS C. CARMER, M. D.

By R. S. MYERS, M. D.

Dr. Lewis C. Carmer was born in the Town of Clarence, Erie County, New York, June 16, 1858, on a farm where his father and mother had settled on at an early day, and where they now reside.

Dr. Carmer's early years were spent working on the farm during the summer season and attending the country school during the winters. When sixteen years of age he was admitted as a student at the State Normal School at Buffalo, N. Y., where he prosecuted his academical and classical studies for four years, after which he remained at home on the farm for one year. He then commenced his medical studies in the Medical Department of the University of Michigan, at Ann Arbor, and, after the attendance of three full courses of lectures, he received his degree of M. D. from that institution in 1883.

Thus equipped by thorough mental and professional culture, he at once engaged in the practice at Williamsville, this county.

He was married to Julia Idsardi, June 16, 1886, who survives him. He continued to practice at Williamsville up to a short time of his death, which occurred at the home of his wife's father, T. E. Idsardi, in the Town of Lancaster, N. Y., July 11, 1892. He died from acute phthisis, in the thirty-fifth year of his age.

Dr. Carmer was a highly educated gentleman, a conscientious and judicious practitioner, and honorable and exemplary in all his social relations. He had a large country practice, and had greatly endeared himself to his patients by his kindness, attention, and professional skill.

He was a member of the Erie County Medical Society, and also a

zealous member of the Gross Medical Club, of which he served as President. His future was full of promise, and by his death the profession and science, equally with family and friends, have sustained an irreparable loss.

The CHAIR appointed, as a Committee on Programme, Drs. J. H. Pryor, DeLancey Rochester, and Wm. C. Krauss, with the President and Secretary *ex-officisis*.

Upon motion by Dr. HAYD, the Secretary and Treasurer were each allowed the sum of $50 for services during the past year.

Adjourned, at 6.15 P. M., without day.

Correspondence.

NEW YORK, January 3, 1893.

Roswell Park, A. M., M. D., 510 Delaware avenue, Buffalo, N. Y.:

DEAR DR. PARK—One-thirteenth part of your interesting paper on Actinomycosis, read before the Buffalo Academy of Medicine, and published in the BUFFALO MEDICAL AND SURGICAL JOURNAL for January, 1893, is a copy, *verbatim, literatim et punctatim*, from *Condensed Extracts* for August, 1892.

Your own work cannot leave you unaware of the vast amount of labor the preparation of such matter entails. The free hand with which authors and journals avail themselves of my arduous search among over 400 medical journals monthly, without even giving me credit, oblige me to protect myself.

If the next issue of the BUFFALO MEDICAL AND SURGICAL JOURNAL contains a statement, over your signature, acknowledging that one of the thirteen pages of your article was taken bodily from *Condensed Extracts*, thus demonstrating your appreciation of my little journal as an aid to medical authors, specialists, and general practitioners, that *Condensed Extracts* represents about $1,600 worth of annual subscriptions to foreign medical journals, which I furnish at $1 per year, and that *Condensed Extracts* is published at 256 West Fifty-first street, New York, whither you advise all to send for a sample copy, which, in your opinion, will lead to becoming regular subscribers, then I will deem that you did not intentionally violate the copyright which protects every line in *Condensed Extracts*.

Failing in the above, I shall be obliged to take such further steps as I may be advised.

Looking to you for justice, I am, dear Doctor,

Yours very truly,

FERD. C. VALENTINE.

Buffalo, January 4, 1893.

Dr. F. C. Valentine :

As I am not a subscriber to the Buffalo Medical and Surgical Journal, I cannot say whether all you charge me with is true. The paper was read at a society meeting, when it was announced that it was not origintal *in toto*, and that as much of it as was my own was already in print, save a case report, and that it was read by request of others, not on my own volition.

The portion you so strenuously object to *was* a cutting from your journal, I grant. At the conclusion of the evening, the assistant editor of the above journal asked me to let him take it to summarize it. I was quite surprised to find it practically reprinted, and though I have seen the proof—hurriedly—have not seen it in page form. If I remember anything about it in this connection, it is that credit is given to the *sources* whence came what was copied, though I don't recall that your paper is mentioned. I owe it to myself to say that this was not an intentional slight, but that I never supposed what I *read* would appear in print.

But, in saying this, I have done my duty, and am in no wise responsible for what a journal may do with matter not originally intended for publication. Your earnestness amuses me, and I like it, but your endeavor to make of me purely an advertising medium is not to my taste, nor do I propose to be responsible for statements as to the money value of what your journal does or purports to represent. You will never find me slow to repair a wrong or to rectify an unintentional error, but you will find certain traits in my character less pleasing to you should you provoke their exhibition. A quotation from your journal should be regarded as a compliment to it, not as an insult. Did you anticipate that I could have stated its circulation, its advantages, etc., providing I had alluded to it at all, without previous correspondence with yourself ?

But, seriously, I see how you feel, and am sorry that the accident should have so annoyed you. When you have done more

work of the kind you are doing so well, you will hear and see many slips of tongue and pen, *in others*, which you deprecate. Some such slip you will then be convinced you made in writing such a letter to me. Had you suggested an *amende honorable*, I should have been pleased to comply. What you propose, however, is far more dishonorable to yourself than my fault of omission, of which you justly complain.

Should the editors of the BUFFALO JOURNAL permit it, and you desire it, I have no objection to the appearance in its pages of both our letters, yours and mine.

Yours truly, ROSWELL PARK.

JANUARY 7, 1893.

Dr. Roswell Park, 510 Delaware avenue, Buffalo, N. Y.:

DEAR DOCTOR—I accept your proposition to have your and my letters appear in the BUFFALO MEDICAL AND SURGICAL JOURNAL, and shall look to the February issue of that publication for settlement of the question.

Yours truly, FERD. C. VALENTINE.

THE lower berth of a Pullman sleeper contains forty-five to fifty cubic feet of air, hemmed in with walls on all sides, and little opportunity for its renewal (*South. Clinic*). Pure air contains one-fifth oxygen. There would then be in the berth ten cubic feet of oxygen. A healthy man inhales sixteen cubic feet of oxygen every twenty-four hours, and exhales fourteen cubic feet of carbon dioxide. If he occupies such a berth from 9 P. M. to 7 A. M. he would abstract from it six cubic feet of oxygen and inject into it six cubic feet of carbon dioxide, and various effete products of the body. Instead of seven parts of carbon dioxide per 10,000, the full amount allowed from exhalation to a healthy atmosphere, before he left his sleeping apartment in the morning, it would contain over 1,000 parts per 10,000. Alas! for the luxury of a sleeping car.—*Medical Review* (*St. Louis*).

PAPER money may be a dangerous medium for the transmission of pathogenic bacteria. Two notes examined by experts in Havana yielded more than 19,000 germs of various kinds. Cultures of these injected into the peritoneal cavity of guinea-pigs caused death, in almost every instance, in twenty-four hours.—*Med. Bul.* (*Chicago.*)

BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

EDITORS:

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business character, should be addressed to the managing editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XXXII. FEBRUARY, 1893. No. 7.

THE MEDICAL SOCIETY OF THE COUNTY OF ERIE.

THIS society held its annual meeting January 10, 1893, an account of which will be found under the head of Society Proceedings. Though the day of the meeting was the coldest thus far of the year, it was a large gathering of interested professional men, who dispatched the work of the society with promptness and apparent satisfaction to all.

The President, in his address, dealt with some of the essential needs of the society, and we hope every member will read the address, which is published in another column of this issue. It contains suggestions on many subjects that require careful consideration, and some action ought to be taken with reference to some of them at an early day. We invite attention, particularly, to what he has said regarding the State Medical Examining and Licensing Board. It is essential that every physician should become familiar with the requirements of the law regarding license to practise medicine, so that he may be enabled to point out the essentials to those who may become applicants for license under the statute.

There has been great danger that this beneficent law would be rendered nugatory by tampering with it through unauthorized individual efforts. We say unauthorized, because, in reality, no amendment to the law should be made without the recommendation of the Examining Boards and the Regents of the University, which should be considered the authorized source whence all amendments should spring. These are the official executors of the law, and know wherein it may need modification or amendment. There should not only be a firm resolution on the part of the profession of medicine throughout the State to prevent any weakening

of its force and effect, but also a standing together for the purpose of making it better and stronger. Only recently an attempt was made on the part of Niagara University to widen the doors with reference to preliminary educational qualifications of students, and a bill looking to a modification of the present requirements was introduced in the legislature by Dr. Goldberg, Assemblyman from the second district, who is also one of the members of this society. This, at first, seemed bad for both the instigators of the bill and the honorable member of the legislature who introduced it, but upon further explanation and understanding, it has been disovered that neither is Dr. Goldberg in favor of the bill, nor will the originators of it further urge its passage, all concerned having been convinced that it would be unwise to modify the present law in the direction named.

The Buffalo *Enquirer*, of January 14th, contained a statement from Dr. Goldberg, to the effect that he would not move the bill from its present place unless instructed to do so by the Medical Society of the State of New York. This seems a satisfactory adjustment of the matter, and all parties interested are apparently satisfied. This, however, only shows how watchful the friends of medical education must be to prevent unwise adverse legislation on the subject.

The scientific part of the meeting was most interesting, and the attendance was large even to the late hour of adjournment. An account of these proceedings in part will be published in a future number of the JOURNAL, which will contain the papers and discussion on The Relation of Gonorrhea to Pelvic Disease in Women.

TOPICS OF THE MONTH.

THE biennial report of the Trustees of the Eastern Michigan Asylum for the Insane, at Pontiac, for the period ending June 30, 1892, is one of the most creditable reports of similar institutions that we have seen. The fire of December 26, 1891, which made such havoc, and so nearly destroyed the institution, is graphically depicted by photographic reproductions. The work of reconstruction began at once, and everything is in ample order again. Dr. C. B. Burr, the accomplished medical superintendent, makes a most elaborate report of his official work for the biennial, occupying seventy pages of the brochure. Considerable interest is added to Dr. Burr's report, from the fact that to the medical staff of the

asylum is attached, as consulting gynecologist, Dr. W. P. Manton, who has made a number of abdominal sections for the relief of insane patients suffering from pelvic disease. In doing so, Dr. Manton has had the cordial support of the asylum management in both the business and medical departments. The result of this work has been lately given out to the professional world in a paper published by Dr. Manton in the November number of the *American Journal of Obstetrics*, which we advise every one interested to read. Dr. Rohé, Superintendent of the Maryland Institution, at Catonsville, has been pursuing this same work on a more extended scale, and his results are also given out in the same journal. Both these papers were read at the St. Louis meeting, September 1, 1892, of the American Association of Obstetricians and Gynecologists, and the Transactions of the Association for the year 1892 will contain both these papers, together with the discussions thereon. We predict that the work inaugurated by Drs. Manton and Rohé will lead to a reconstruction of opinions heretofore held by superintendents of asylums on the subject in question. There is need that every insane hospital should have attached to its medical staff a competent gynecologist, who is prepared by training and equipment to do abdominal surgery when necessary.

In the report of the Chief of the Bureau of Medicine and Surgery, U. S. Navy, for 1892, Dr. Albert L. Gihon, Medical Director, gives the present status of the U. S. Naval Hospital, at Brooklyn, up to the date of his relief from duty there. Dr. Gihon suggests the peculiar fitness of this hospital, which is one of the best appointed hospitals in New York, for the establishment of a "Naval Medical School of Practice," for the instruction in higher medicine of the young entrants in the medical corps. This would be a marked advance in the conduct of naval medical affairs, and evidently is one of the ever-growing needs of the service. It seems to us that Dr. Gihon's recommendation should be promptly adopted.

Medical Director Wales reports upon the growth of the Naval Museum of Hygiene, under his charge. This institution is one of the three great museums of this character in existence, and in the extent and practical value of its exhibits surpasses the other two at London and Berlin.

The report, altogether, is an interesting one, and will well repay a careful reading by all physicians who bear any relation to

the naval medical service, either as members of the staff or interested observers of its work.

The time has passed when it is pertinent to discuss the propriety of warming street cars in Winter, either from a standpoint of hygiene, sanitation, or decency. There are no scientific arguments that can hold on the negative side of the question, neither are any such offered. The only opposition to the measure seems to come from a few sophomore editors of daily newspapers and the managers of the street railway companies. With these we have no issue, because we do not expect them to be scientific or unselfish. If there is any doubting mind on the question, either as related to sanitation or comfort, let him take an early morning ride from Main street to Black Rock on one of the delightfully pleasant and comfortably warm cars of the Niagara line, and on his return to Main street board a Cold Spring car going north. Upon his return to the center of business, we think he will vote for the cars that are provided with heaters by a large majority.

As we remarked at the outset, there is no discussion now as to the propriety of properly heating the street cars; the only question for debate, and that is chiefly on grounds of economics, is the method of providing heat for the same. But, let not our esteemed managers wait for a better system, but put in stoves at once, and when something more serviceable is devised, let that be adopted; in other words, let us show ourselves to be a progressive city in whatever contributes to the comfort, health, and prosperity of our citizens. Not a visitor from another city comes to us but that criticises, in no weak terms, our present system of street railway management.

Civil Service Examinations.—John B. Riley, Chief Examiner, under date of January 19, 1893, announces an open competitive examination of candidates for the positions of first assistant, junior assistant, and female physicians, and apothecaries in the State Hospital Service, will be held at the rooms of the New York Civil Service Commission, in the Capitol, Albany, on Tuesday, February 28th, at ten o'clock A. M.

Applicants for the position of first assistant must be graduates of a legally incorporated medical college. They must be not less than twenty-five years of age, and must have had three years'

experience as physician in a hospital for the insane. Applicants for the positions of female and junior assistant physicians must be graduates of a legally incorporated medical college, and must have had one year's experience in a hospital, or three years' experience in the general practice of medicine. Applicants for the position of apothecary must have a license from the State Board of Pharmacy. All applicants must be citizens, and residents of the State of New York during the year last past.

For application blanks and other information, address Clarence B. Angle, Secretary, New York Civil Service Commission, Albany, N. Y.

The Toledo *Medical Compend*, for December, 1892, which, by the way, arrived on the 12th day of January, 1893, contains an editorial on the subject of advertisers and advertisements that is as remarkable for its statements as it is misleading. No doubt, advertisers in medical journals benefit the medical profession in divers and various ways; we need not discuss that question now. But when a medical journal that holds itself up to be an exemplar of ethical propriety and an expounder of the code as found in the by-laws of the American Medical Association, asserts that a strictly scientific man is not popular in this age of the world, and that to be scientific does not bring financial fruit, it is about time that some effort was made to prevent such dangerous doctrine from spreading itself out among the young candidates for the degree of doctor of medicine.

Mr. E. B. Treat, medical publisher, of New York, announces that he has in press for early publication the International Medical Annual for 1893. This is the eleventh yearly issue of this valuable work, and a glance at the prospectus gives promise that it will be superior to any of its predecessors. The original corps of thirty-eight specialists are retained as editors, and these have been wisely chosen from among the more prominent physicians and surgeons of America, Great Britain, and the Continent of Europe.

In this book will be found, arranged in a practical manner for ready reference, whatever is worth preserving of the year's medical literature, together with a number of papers written especially for the Annual, and it will contain over 6,000 references to diseases and their remedies. It is illustrated with a number of instructive cuts, in black and colors, that are serviceable in explaining the

text. The price of the book, $2.75, is very reasonable, and ought to put it into the hands of every practitioner in this country who considers himself a progressive physician.

The city newspapers are entitled to the thanks of the profession for the marked courtesy with which they treated the Medical Society of the County of Erie at its last meeting. Generally speaking, the flaming headlines have indicated something other than the text when notices of doctors' meetings have appeared in the newspapers. We observed that the *Buffalo Commercial* published the dignified headline, "Our Doctors Meet," which was certainly everything that could be desired in that direction; and so with other city dailies that were quite as considerate with their display of types, if not as apt. This all shows an increase of respect for a profession that certainly has a right to expect fair treatment at the hands of the daily press.

The *Medical Bulletin* is the title of a weekly medical newspaper published by the Kauffman Medical Publishing Company, of Chicago. It is edited by Dr. M. W. Kauffman, and is intended to cover the field of a weekly newspaper devoted entirely to medical affairs. In other words, it will not publish long scientific dissertations, but only items of medical news, and will be especially devoted to the interest of the physicians during the Columbian Exposition. By registering with the *Bulletin*, physicians will have the advantage of obtaining every convenience during their sojourn in Chicago at a reasonable cost, and thus avoid the possibility of extortion. This enterprise on the part of Dr. Kauffman is worthy of support.

At the January meeting of the Pittsburg Obstetrical Society, Dr. John Milton Duff reported having performed a pubeotomy on Mrs. Deitrich Smith. Mother and child were both doing well on the eighteenth day.

Personal.

Dr. D. B. St. John Roosa was elected President of the New York Academy of Medicine, at its annual meeting, held January 5, 1893. It is stated that the largest vote was cast on this occasion that has been known in the history of the Academy. In electing Dr. Roosa

to this high office, the Academy has reflected quite as much honor upon itself as it has conferred upon the able and erudite physician whom it has chosen to be its chief executive officer for the next two years.

Dr. G. Frank Lydston, of Chicago, was tendered a dinner by the Detroit Medical Library Association, at the Hotel Cadillac, on Monday evening, January 9, 1893. After the dinner, Dr. Lydston delivered a lecture in the hall of the society, entitled Etiology of Prostatic Hypertrophy. A large number of the profession of Detroit, including its most prominent members, was present.

Society Meetings.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

Eighty-seventh Annual Meeting.

The annual meeting will be held in the City Hall, at Albany, Tuesday, Wednesday, and Thursday, February 7, 8, and 9, 1893, commencing at 9.15 A. M. on Tuesday, and ending at 1 P. M. on Thursday. A cordial invitation is extended to all members of the County societies.

PROVISIONAL PROGRAMME.

Tuesday, February 7, 1893.—*Morning Session.*—9.15—Call to Order; President's Inaugural Address; Executive Business. 10.30—Scientific Business: Landon Carter Gray, M. D., New York, The Relation, in the Male and Female, of Genital Disease to Mental and Nervous Affections. 11.00—Special Order for the Morning: Topic—Epilepsy. (1.) The Epileptic Interval; Its Phenomena and their Importance to Treatment, William Browning, M. D., Brooklyn. (2.) Reflex Disturbances in the Causation of Epilepsy, William C. Krauss, M. D., Buffalo. (3.) Mental Epilepsy, J. Montgomery Mosher, M. D., St. Lawrence State Hospital for the Insane, Ogdensburg. (4.) The Development of Epilepsy after Traumatic Injury to the Skull, B. Sachs, M. D., New York. 12.45—Adjournment.

Afternoon Session.—2.15—Call to Order; Executive Business. 2.45—Scientific Business: R. C. M. Page, M. D., New York, The Treatment of Uremic Convulsions; J. L. Kortright, M. D., Brooklyn, The Registration of Midwives. 3.30—Special Order for the Afternoon: Topic—The Relative Value of Certain Obstetrical Operations. (1.) General Review of the Operations to be Discussed, by Dr. Egbert H. Grandin, of New York. (2.) The Limitations of Embryotomy, by Dr. N. Clifton Edgar, New York. (3.) The Limitations of the Cesarean

Section, by Dr. Robert A. Murray, New York. (4.) The Anatomical Limitations of Symphysiotomy, by Dr. J. E. Kelly, New York. (5.) The Clinical Limitations of Symphysiotomy, by Dr. Charles Jewett, Brooklyn. General Discussion, to be participated in by Drs. E. P. Davis, Philadelphia; H. A. Kelly, Baltimore; H. C. Coe, New York; Reynolds, Boston. 6.00—Adjournment.

Evening Session.—7.45—Howard A. Kelly, M. D., Baltimore, Practical Antisepsis and Asepsis, with Stereopticon Demonstrations (by invitation). 9.00—Joseph H. Hunt, M. D., Brooklyn, Epitaphs from the Tombstones of Medical History, with Stereopticon Projections of Many Old and Rare Medical Portraits.

Wednesday, February 8, 1893.—*Morning Session.*—9.15—Call to Order; Executive Business. 9.30—Scientific Business: Topic—The Management of Suppuration Complicating Tuberculous Disease of the Bones and Joints. Papers by Drs. V. P. Gibney, of New York; Roswell Park, of Buffalo; Henry Ling Taylor, of New York; and Louis A. Weigel, of Rochester. 10.30—Special Order for the Morning: Topic—The Present State of Knowledge as to Carcinoma. (1.) The Pathology of Carcinoma, H. C. Coe, M. D., New York. (2.) The Etiology of Carcinoma, Roswell Park, M. D., Buffalo. (3.) The Value of Internal Medication in the Treatment of Carcinoma, Jarvis S. Wight, M. D., Brooklyn. (4.) The Results Obtainable from the Use of Analine Products in Carcinoma, Willy Meyer, M. D., New York. (5.) Caustics in the Treatment of Carcinoma, Daniel Lewis, M. D., New York. (6.) The Knife in the Treatment of Carcinoma, N. Jacobson, M. D., Syracuse. Discussion to be opened by Dr. George R. Fowler, of Brooklyn. 12.45—Adjournment.

Afternoon Session.—2.15—Call to Order; Executive Business. 2.30—Scientific Business: Herman Mynter, M. D., Buffalo, Tuberculous Epididymitis. 3.00—Special Order for the Afternoon: Topic—Newer Methods of Diagnosis and Treatment of Stomach and Intestinal Diseases. (1.) The Practical Value of the Newer Methods of Examination in the Diseases of the Stomach, with a Consideration of the Indications Given for Diet and Treatment by such Examinations, by Henry L. Elsner, M. D., Syracuse. (2.) The Methods of Obtaining and Examining the Stomach Contents in Disease for Purposes of Diagnosis, by J. Fuhs, M. D., Brooklyn. (3.) The Disturbances of the Motor Function of the Stomach; their Diagnosis, Symptoms, and Treatment, by C. G. Stockton, M. D., Buffalo. (4.) The Physiological Effect of Electricity in the Stomach, the Indications for its Administration and Use in Gastric Disease, and the Methods of Using the Same, by Max. Einhorn, M. D., New York.

Evening Session.—8.00—Anniversary Address by the President in the Senate chamber. Topic—The Evolution of the American Surgeon. 9.30—Annual dinner of the Society at the Delavan House.

Thursday, February 9, 1893.—*Morning Session.*—9.15—Call to Order ; Executive Business. 9.30—Scientific Business : J. S. Cooley, M. D., Glen Cove, Report of a Case of Severe Abdominal Injury Terminating in Recovery ; Alex. Dallas, M. D., New York, The Treatment of Inguinal Hernia ; Andrew F. Currier, M. D., New York, Certain Types of Septicemia Resulting from Abortion ; Wm. W. Potter, M. D., Buffalo, Puerperal Sepsis, Its Prevention and Cure ; W. Franklin Chappell, M. D., New York, Hoarseness ; Nelson G. Richmond, M. D., Fredonia, The Diagnosis and Nomenclature of Fevers ; Wm. F. Mittendorf, M. D., New York, Congenital Opacities of the Lens ; W. Freudenthal, M. D., New York, Is Stoerk's Blenorrhea and Laryngitis Sicca One and the Same Disease ?

The Committee on Credentials will meet at the Delavan House Monday evening, when members and delegates can register. The Committee consists of Dr. Walter B. Chase, of Brooklyn ; Dr. Charles M. Culver, of Albany ; and Dr. J. P. Creveling, of Auburn.

Communications regarding papers should be addressed to the Business Committee : Dr. Seneca D. Powell, 12 W. Fortieth street, New York ; Dr. William Maddren, 1 Hanson place, Brooklyn ; Dr. John O. Roe, 28 N. Clinton street, Rochester.

Book Reviews.

A Treatise on Diseases of the Rectum, Anus, and Sigmoid Flexure. By Joseph M. Mathews, M. D., Professor of the Principles and Practice of Surgery, and Clinical Lecturer on Diseases of the Rectum, Kentucky School of Medicine ; Visiting Surgeon, Sts. Mary and Elizabeth Hospital ; Consulting Surgeon, Louisville City Hospital ; Consulting Surgeon, Jennie Cassady Free Infirmary for Women ; late President Mississippi Valley Medical Association ; President Louisville Clinical Society ; Vice-President Louisville Surgical Society ; Member International Medical Congress, American Medical Association, Southern Surgical and Gynecological Society, Kentucky State Medical Society, State Board of Health of Kentucky ; Orator of the American Medical Association on Surgery, 1891, etc. With six chromo-lithographs and numerous illustrations. Octavo, pp. xvi.—537. New York : D. Appleton & Co. 1892.

In the preface to his book Dr. Mathews states that the work is the result of a desire to record his individual experience of fifteen years as a rectal specialist, and even a hasty perusal of the volume convinces one that his desire was a laudable one, for the work is an eminently practical and useful guide to the study and practice of rectal surgery. The text bristles with proofs that the author has had a large and varied practical experience upon which to draw

for interesting material in the production of the volume before us. It contains, as he says, many things that are new to a work of the kind, among which may be mentioned the chapters on Disease in the Sigmoid Flexure, the Hysterical or Nervous Rectum, Anatomy of the Rectum in Relation to the Reflexes, Antiseptics in Rectal Surgery, and a New Operation for Fistula-in-ano. In the introductory chapter the author deals incidentally, but very intelligently, with the interesting subject of questions relating to examinations for life insurance of applicants who are or have been subject to rectal disease.

In Chapter III. the subject of constipation receives its full share of attention, and is exhaustively treated from the surgical standpoint. The author is certainly deserving of the thanks of the profession for the very proper and forcible manner in which he calls attention to the great importance of the external sphincter muscle as a factor in this common and distressing condition.

Antiseptics in Rectal Surgery is fully discussed in the fourth chapter, and the subject of Anesthesia, both local and general, is also alluded to. The use of cocaine is touched upon, and, from the author's remarks, we are forced to the conclusion that his experience with it in rectal disease, tallies well with that of most rectal surgeons respecting the usefulness of this drug as a local anesthetic, in that it does not seem to be of much value in rectal disease unless used in doses which might perhaps prove dangerous. In this chapter a few cases are cited where operations of considerable magnitude were performed under the anesthetic influence of whisky. In the chapter devoted to the treatment of Hemorrhoids several of the best methods of operation are described in detail, and the author rightly condemns that unscientific and unsurgical method of treatment largely resorted to by the charlatan, viz., "The Carbolic Acid Treatment" by injection. Perhaps, he is a little too severe in his condemnation of the "Whitehead Operation," although there is a vast amount of sound surgical argument in his seven objections to the method.

In Chapters VIII. and IX. the Diagnosis and Treatment of Abscess and Fistula of the Ano-rectal Region are fully discussed. The author is to be commended for the emphatic manner in which he condemns those surgeons (?) who refuse to operate on a fistula unless they always succeed in finding the internal opening of the sinus. It is certainly arrant nonsense to refuse to operate on these cases unless this opening can be found, for it cannot be found in

one-half of the cases in which operative and radical procedures are an imperative necessity, and it is a matter of little consequence whether it is found or not, if the one who is to operate knows his business, as he ought. An operation is certainly indicated in the large majority of cases of fistula, internal opening or no internal opening, and if such opening cannot always be found, the skilful surgeon can quickly make one, which he must do, in order to cure his patient.

We are disappointed, however, at the brevity with which the author deals with the treatment of rectal abscess, and we certainly think he is in error when he says that the majority of abscesses in this region commence in the pelvi-rectal space of Richet.

The diagnosis and treatment of abscesses of the ano-rectal region are of great and lasting consequence, for upon their prompt recognition and proper management depends, to a great extent, the prevention of that disagreeable malady, fistula-in-ano. The author's treatment for these cases is commendable, so far as it goes, but it does not go far enough. We believe no surgeon is justified in treating an abscess of the ischio-rectal variety, or one originating in the pelvi-rectal space of Richet, who does not put his patient under an anesthetic and stretch the sphincter muscle, thereby putting the parts at rest, in order that the abscess cavity may have a proper chance to heal up without the formation of a fistula. This desirable result will not be obtained, in a large percentage of cases, unless this necessary step in the operation is performed ; otherwise the treatment outlined by the author is above criticism.

There is no doubt but that the author is correct in claiming priority in the method of treating fistula by the fistulotome, and it is gratifying to notice that he assigns the use of the ligature to its legitimate and proper sphere, viz., in sinuses running high up the bowel, where large vessels are liable to be involved, and where it would be difficult to control the hemorrhage if these vessels were incised. In the chapter on Strictures of the Rectum, the author differs widely from many authorities regarding the part played by syphilis and chancroidal disease in the production of strictures, but time and space prevent our going into detail regarding these differences.

In conclusion, it is a satisfaction to say that Prof. Mathews is to be congratulated on the production of his work, for, on the whole, it is a valuable, safe, and practical guide to follow, well worthy the careful perusal of any surgeon, young or old, who is

at all interested in the particular branch of surgery to which it is devoted.

The author is to be congratulated also upon the efforts he has made and is making to wrest the treatment of rectal diseases from the domain of quackery, which has long tried to monopolize it, and place it in its legitimate sphere among the well-recognized specialties in surgery.

The work is a fine sample of the book-maker's art, and abounds with many handsome cuts and chromo-lithographs, which greatly add to its beauty and enhance its usefulness. E. C.

TEXT-BOOK OF OPHTHALMOLOGY. By DR. ERNEST FUCHS, Professor of Ophthalmology in the University of Vienna. Authorized translation from the second enlarged and improved German edition, by A. DUANE, M. D., Assistant Surgeon Ophthalmic and Aural Institute, New York. With numerous illustrations. Octavo, pp. 788. Price, $5.00. Sold by subscription. New York: D. Appleton & Co. 1892.

The multiplicity of text-books on diseases of the eye would seem, at the present time, to be sufficient to supply the demand for works of this kind, and contra-indicate the issue of any more, at least for a while, particularly when those already published possess such intrinsic merit as is recognized in Noyes, Swanzy, Berry, Schmidt-Kimpler, Meyer, Juler, de Schweinitz, and others. But when such a man as Fuchs offers the results of his vast experience to the profession, he is sure to find a most generous welcome, no matter who has gone before him. From the first appearance of Fuchs's text-book in German, it has received high praise, and has been regarded as the work of a master hand. The English-speaking part of the profession has desired to see it in familiar vernacular, and has impatiently awaited its translation. The publishers did not misjudge public sentiment when they assumed that there was a demand for this particular treatise. Dr. A. Duane, of New York, has taken upon himself the task of rendering it into English, and has so well succeeded that it is very easy and pleasant reading. Not only is the book put into good English, but the translator has, in his efforts to Americanize it, made some additions which materially enhance its value. These, however, he has separated from the text by brackets, thus assuming entire responsibility for them.

The work is designed especially as a "text-book," and as such is supposed to contain simply the "essentials" of ophthalmology.

From reading it, however, one is led to feel that the author's idea of "essentials" is more extended than that of most text-book writers, as so much is to be found here that one would look for in vain in other works of the kind. Indeed, into its pages is compressed a vast amount of information bearing upon pathology and practice, and much of it is the outcome of the author's large and mature experience. Thus the work becomes of value to the experienced specialist as well as to the student.

The subjects are divided so that part first includes examination of the eye; part second, diseases of the eye, including those of the structures of the ball, the conjunctiva, lachrymal organs, lids, muscles, and nerves, and orbit; and part third, anomalies of refraction and operations. The strength of the book lies in part second. Here the diseases of the conjunctiva, cornea, sclera, iris, ciliary body, "chorioid," lens, vitreous, retina, optic nerve, lids, lachrymal organs, orbits, and glaucoma are treated most fully. Suitable anatomical descriptions introduce the several chapters, and in the chapter on the Anatomy and Physiology of the Uvea is included the Embryology of the Eye. This subject may seem to be somewhat misplaced, but this does not detract from its own value or interest, or that of the excellent chapter into which it is incorporated. As suggestive of the exhaustive character of this second part of the work, the chapter on Diseases of the Conjunctiva occupies ninety pages; that on Diseases of the Cornea, eighty-nine pages; that on the Anatomy and Diseases of the Iris, Ciliary Body, and "Chorioid," ninety-six pages; that on the Optic Nerve, thirty-three pages; and that on the Lids, forty-eight pages.

Throughout the work, the author has been careful to make the spelling of words correspond to their proper etymology. For example, for "myosis" he writes "miosis," and for "choroid" he writes "chorioid." There is no doubt about the author being etymologically correct. "Hemeralopia" is used to mean night-blindness (day-sight), and "nyctalopia" day-blindness (night-sight). This is the reverse of that recognized by many English ophthalmologists and some American. In 1881 and 1882, Dr. W. A. Greenhill and Mr. John Tweedy (*Royal London Ophthalmic Hospital Reports*, Vol. X., pp. 284 and 413,) examined most carefully into the original meaning of the derivatives of these words, and concluded that "nyctalopia" means night-blindness, and "hemeralopia" day-blindness. Their conclusions have been accepted by many. In the present confusion, however, it might be better to

omit the Greek terms and use only the English, "night-blindness" and "day-blindness," as several have already done.

The weakness of the work is in part third, and in the chapter on Disturbances of Motility, in part second. The subjects of these are disposed of much more summarily. Much that is today esteemed of value in the refraction and "muscularity" of the eye by Americans is entirely ignored by the author, or, if not ignored, is somewhat at variance with views held by them. For example, we fail to find the subject of convergence of the eyes treated of in the work, and, therefore, no mention is made of Nagel's system of "metre-angles," which is now recognized everywhere in scientific ophthalmology, or of the various muscle-tests now in vogue. The American ophthalmologist will also criticise the author's views on the correction of refractive errors, and his non-recognition of the relation of muscular and refractive anomalies of the eyes to headaches and other neuroses.

Notwithstanding what may be regarded by some as a great defect in part third, the other chapters are so good that the work, as a whole, is to be commended to the student and specialist, and may be sought as a safe and trustworthy guide, so far as it goes. Americans must not expect the most light to come from the Germans on so-called "functional disorders" of the eye; but in "organic" diseases of this organ, by their patient, painstaking, and exact researches, they lead the world. In these, too, Fuchs becomes master. A. A. H.

HYDROTHERAPY OF SARATOGA. A Treatise on Natural Mineral Waters. By J. A. IRWIN, M. A., Cambridge, Eng.; M. A., M. D., Dublin University; L. M., College of Physicians, Ire.; Member of Royal College of Surgeons, Eng.; Member of the British Medical Association; Fellow of the London Obstetrical Society, and the New York Academy of Medicine, etc.; formerly House Surgeon Royal Free Hospital, London; Medical Officer Shropeshire and Montgomeryshire Counties Lunatic Asylum, and Physician to the Manchester Southern Hospital for Women and Children. New York: Cassell Publishing Co. 1892.

It is evident that Dr. Irwin is enthusiastic in favor of the medicinal properties of Saratoga waters, and, judging by the comparisons between them and those of the most celebrated European Spaa, not without reason. He thinks that the superior fame of some of the most noted trans-Atlantic waters, such as Carlsbad and others, as curative agents in a certain class of diseases, is, in a great measure, due to the plain food and strict regimen enforced

by the doctors in charge, and that, were the same treatment pursued at Saratoga, its waters would yield results equally good, and certainly his reasoning, based, as it is, on the tabulated statements of the analysis of the waters from the most noted springs, both in our country and Europe, seems conclusive.

Valuable hints in regard to the use and abuse of these waters internally administered, are given, but a larger portion of the work is devoted to the science of baking, and to therapeutic applicability, and to dieteties. While deprecating any omnieurative pretensions, denying that they are in any sense specifies, he says, "Judiciously selected and carefully administered they are without exception the safest and most efficient correctives of the morbid constitutional conditions common to most forms of chronic disease, and, hence, may be credited with the widest range of indirect curative power." Sensible dietary directions are given, and general precepts, with a practical division of the waters. The last chapters are devoted to Nosology, showing the range of diseases in which the waters of the different springs are indicated. The book forms a handy volume of 264 pages, small octavo, well printed, indexed, and beautifully bound in cloth.

International Clinics: A Quarterly of Clinical Lectures on Medicine, Surgery, Gynecology, Pediatrics, Neurology, Dermatology, Laryngology, Ophthalmology, and Otology. By professors and lecturers in the leading medical colleges of the United States, Great Britain, and Canada. Edited by John M. Keating, M. D., Philadelphia, Consulting Physician for Diseases of Women to St. Agnes' Hospital, Philadelphia; editor Cyclopedia of the Diseases of Children. J. P. Crozer Griffith, M. D., Philadelphia, Clinical Professor of Diseases of Children in the University of Pennsylvania; Professor of Clinical Medicine in the Philadelphia Polyclinic. J. Mitchell Bruce, M. D., F. R. C. P., London, England, Physician and Lecturer on Therapeutics at the Charing Cross Hospital. David W. Finlay, M. D., F. R. C. P., Aberdeen, Scotland, Professor of the Practice of Medicine in the University of Aberdeen; Physician to and Lecturer on Clinical Medicine in the Aberdeen Royal Infirmary; Consulting Physician to the Royal Hospital for Diseases of the Chest, London. Second series. Volumes I., II., and III. 1892. Philadelphia: J. B. Lippincott Company.

These three volumes of the second series for 1892 continue the work as mapped out in the original plan. The distribution of the several subjects has been characterized by that good judgment for which the editors are famous.

In Volume I. we note, with special interest, Dr. McPhedran's lecture on Pernicious Anemia. This perplexing disease needs

much elaboration and intricate study, and this author's contribution to the subject is valuable. Dr. Dercum's lecture on Paralysis Agitans is an able setting forth of this disease, and is well illustrated by five photographic reproductions of cases. In the department of pediatrics are a number of lectures that will prove of special interest to the practitioner in this important field of medicine. Dr. Rex gives a short lecture on the Treatment of Constipation in Children, which is excellent. In the surgical department, Dr. Vander Veer discourses upon Some Forms of Adominal Tumors in a most instructive manner, while Dr. Roberts treats of Several Forms of Joint Disease in his usual forcible style. Dr. Montgomery delivers an interesting lecture on Malignant Disease of the Uterus and Its Treatment, in which he gives an interesting experience with Kraske's method of extirpation.

In Volume II., Myxedema is discoursed upon by Dr. Finlay and Dr. Oliver, both of whom illustrate their articles, which furnishes an interesting and instructive addition to the lectures on this subject. In the department of neurology we find interesting and well illustrated lectures by Drs. Allen Starr, F. X. Dercum, and Hendrie Lloyd. Mr. Bland Sutton contributes a most interesting statement on the Axial Rotation of Abdominal Tumors. Inguinal Hernia and Herniotomy are treated of by Dr. Graham, of Washington, in an able manner, but his article deserves illustration. Uterine Hemorrhage is interestingly handled by Dr. Henry C. Coe, as is also the Treatment of Different Forms of Uterine Cancers by Dr. Ashby. Ophthalmology is ably represented by Dr. William Oliver Moore and Dr. McKenzie Davidson, while Laryngology and Rhinology are dealt with by Drs. John N. Mackenzie, Lefferts, and Casselbery. Dr. Ohmann-Dumesnil discourses upon Spontaneous Keloid, and presents a graphic illustration of a case. Dr. Charles H. Burnett closes the book on Some Common Forms of Disease of the Ear, which deserves attentive reading.

In Volume III., Dr. Alfred L. Loomis speaks of Suppurative Pleurisy, while Dr. Charles G. Stockton, of Buffalo, learnedly discourses upon Gastric Neuroses. An important lecture on Foreign Bodies in the Air Passages is given by Dr. Hector C. Cameron, of Glasgow; Dr. Forchheimer speaks ably upon Intestinal Catarrh, while Dr. Ernest Wende, of Buffalo, presents a most interesting and instructive lecture on Infantile Eczema, which is illustrated by a most remarkable case. Whenever Dr. Wende speaks, he teaches something, and no one can arise from the peru-

sal of this lecture without feeling he has been communing with a master. De Garmo speaks on The Mechanical Treatment of Inguinal Hernia, which he illustrates by a number of appliances. Dr. Mann discourses upon the Removal of Diseased Tubes and Ovaries with Firm Adhesions, and Dr. Polk tells How to Preserve the Uterine Appendages by Operation. Berry Hart discourses upon Typical Abortion, and illustrates his paper with most excellent cuts. Dr. Mundé gives an interesting group of cases, which closes the gynecological lectures in this volume.

We have hastily run over these three volumes, making allusions here and there to some points of special interest, but have by no means been able to give a complete analysis of all the lectures in the three books. The space at our command would not permit us to do this, neither is it necessary in order to convey to the reader a proper understanding of the merits of this work. We commend it especially to teachers and clinicians, as well as to general practitioners, who are anxious to keep pace with the progress of medicine and surgery in its several departments.

Geographical Pathology: An Inquiry into the Geographical Distribution of the Infective and Climatic Diseases. In two volumes, by Andrew Davidson, M. D., F. R. C. P., Ed., Late Visiting and Superintending Surgeon, Civil Hospital, and Professor of Chemistry, Royal College, Mauritius. Europe, Northern and Western Asia. India, Ceylon, and Burmah. Vols. I. and II. New York: D. Appleton & Co. 1892.

This work occupies a somewhat novel field in the literature of medicine. Its object, as stated by the author, is to sketch the geographical distribution of infective and climatic diseases, and to trace the influence of temperature, rainfall, altitude, and soil-conditions on their prevalence, character, and epidemic spread.

In the pursuit of this object, Davidson presents a study of these diseases in the various subdivisions of Europe, Asia, Africa, and the Western Hemisphere. He has thus, in his observations, given to the profession a reference book which will tell, with a reasonable degree of accuracy, the prevailing diseases of the various countries of the world at their probable season, as well as information on the subject of climate, moisture, dryness, and temperature. The work is rather one for reference than for consecutive reading, but it is also one that must be examined with some detail in order to understand the valuable relations it has to the study of geographical disease prevalence.

The wide extent of territory covered by the United States makes it a favorable field for the study on a large scale of the effects of temperature, rainfall, altitude, soil, and social conditions on the health of the community; and the peculiarity in this country is that one may include in such a study, side by side, the Caucasian, Indian, and Negro races. Davidson has availed himself of this opportunity, and gives a faithful setting forth of the bearings these several conditions have upon disease. Most of the observations contained in this volume are based on the tenth census, 1880, and so would appear to be about twelve years behind the conditions of the present. But, it must be remembered that for the purposes intended in a research of this sort, a decade can make very little difference in the ratios or in the climatological influences upon diseases. It is not probable, however, that a new edition will be demanded or even needful until the census of 1900; it then may be made to include such changes as increase of population and cultivation of soil in the West may entail.

A Pocket Medical Dictionary, giving the Pronunciation and Definition of about 12,000 of the Principal Words used in Medicine and the Collateral Sciences. By George M. Gould, A. M., M. D., Author of a New Medical Dictionary; Ophthalmic Surgeon to the Philadelphia Hospital. Including a very complete table of the Arteries, Muscles, Nerves, Bacteria, Bacilli, Micrococci, Spirilli, and Thermometric Scales, and dose list of drugs and their preparations, in both the English and metric systems of weights and measures. Philadelphia: P. Blakiston, Son & Co. 1892.

In the preface to this useful book, Dr. Gould says that medical students and practitioners often have need of a small elementary word-book that may be slipped into the pocket for hurried reference and to serve as a passing reminder of the more commonly used terms. The compiler of this admirable condensed medical dictionary has expressed a great truth in the foregoing excerpt from his preface, and his book admirably fills the place which it is designed to occupy. In short, we consider this the best condensed medical dictionary that we have ever met with, and hesitate not to recommend it for the purposes it aims to meet. We particularly commend the editor for having eliminated diphthongs wherever practicable.

BOOKS RECEIVED.

The Anatomy and Surgical Treatment of Hernia. By Henry O. Marcy, A. M., M. D., LL. D., of Boston. President of the American Medical Association; Surgeon of the Hospital for Women, Cambridge;

President of the Section of Gynecology, Ninth International Congress; Late President of the American Academy of Medicine; Member of the British Medical Association; Member of the Massachusetts Medical Society; Honorary Member of the New York State Medical Association; Fellow of the Boston Gynecological Society; Corresponding Member of the Medico-Chirurgical Society of Bologna, Italy; Fellow of the American Association of Obstetricians and Gynecologists; Fellow of the Southern Surgical and Gynecological Association; Late Surgeon U. S. Army, etc. With sixty-six full-page heliotype and lithographic plates, including eight colored plates from Bougery, and thirty-seven illustrations in the text. New York: D. Appleton & Co. 1892. Sold only by subscription. Half morocco. $15.00.

Notes of the Newer Remedies, their Therapeutic Applications and Modes of Administration. By David Cerna, M. D., Ph. D., Demonstrator of Physiology in the Medical Department of the University of Texas, Galveston; formerly Assistant in Physiology, Demonstrator of, and Lecturer on, Experimental Therapeutics in the University of Pennsylvania; Fellow of the College of Physicians of Philadelphia; Corresponding Fellow of the Sociedad Espanola de Hygiene, of Madrid; Associate Editor of Sajous' Annual of the Universal Medical Sciences, etc. Duodecimo, pp. viii—177. Price, $1 25. Philadelphia: W. B. Saunders, 913 Walnut street. 1893.

A Text-Book of Practical Therapeutics, with especial reference to the application of remedial measures to disease, and their employment upon a rational basis. By Hobart Amory Hare, M. D., B. Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Laureate of the Royal Academy of Medicine in Belgium, of the Medical Society of London, etc.; President of the Section of Therapeutics in the Pan-American Medical Congress. Third edition. Enlarged and thoroughly revised. Cloth, $3.75; leather, $4.75. Philadelphia: Lea Brothers & Co. 1892.

A Manual of Ophthalmology. By Howard F. Hansell, M. D., Lecturer on Ophthalmology in the Jefferson Medical College Hospital, Chief Clinical Assistant in Eye Department, Jefferson Medical College Hospital; Member of the American Ophthalmological Society; Fellow of the College of Physicians, Philadelphia, etc.; and James H. Bell, M. D., lately Demonstrator of Anatomy in Jefferson Medical College; Member of Ophthalmological staff, Jefferson Medical College Hospital; Ophthalmic Surgeon to the Southwestern Hospital, and Dispensary, etc. With 120 illustrations. Price, $1.75. Duodecimo, pp. xiv.—231. Philadelphia; P. Blakiston, Son & Co., 1012 Walnut street. 1892.

Transactions of the Medical Society of the State of North Carolina. Thirty-ninth annual session, held at Wilmington, N. C., May 17, 18, and 19, 1892. Wilmington, N. C.: Jackson & Bell, steam power presses. 1892.

Notice to Contributors.—We are glad to receive contributions from every one who knows anything of interest to the profession. Articles designed for publication in the Journal should be handed in before the first day of the month. The Editors are not responsible for the views or opinions of contributors. All communications should be addressed to the Managing Editor, 284 Franklin St., Buffalo, N. Y.

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Original Communications.

IRRIGATION OF THE URETHRA AND BLADDER BY POSTURE AND CONTINUOUS CURRENT.[1]

By B. H. DAGGETT, M. D., Buffalo, N. Y.

The management of urethral disease is a reproach to the profession. The fact that numberless and divers formulæ for use in this malady burden our text-books and encumber our journals, indicates that the profession is at sea, that our methods are uncertain, and our treatment is empirical. The bacteriologist is busy in discovering pathological germs and the therapeutist is baffled in his combat with them. Neisser discovered the gonococcus and alleged that this is the cause of specific urethritis. The therapeutist forthwith applied germicidal remedies, and a new set of formulæ were launched upon the medical sea of uncertainty.

The germ theory of specific urethritis has not been universally accepted, and surely has not begotten any more successful method of treatment than formerly prevailed. My experience and observation teach me that germicidal, or any other remedies which aggravate the existing irritation, do harm; for germs revel in the products of inflammatory conditions.

Otis says that corrosive sublimate is often irritating, even when one part to 20,000 is used. Gouley says not to give injections during the acute stage of urethritis. Meddlesome and inappropriate instrumentation have done irreparable harm to the genito-urinary apparatus. The urethral canal is a collapsing tube, curved in its course, flattened transversely or longitudinally in the different divisions of its route; it is supported by cellular, expansible tissue, and lined with a delicate, sensitive, folding membrane; and is part and parcel of two of the most functionally active organs of the body.

1. Read at the regular quarterly meeting of the Lake Erie Medical Society, July 15, 1892.

Yet this delicate, complicated structure is incised, divulsed, punctured, corroded by chemicals and electricity; eroded by injudicious use of sounds and catheters as freely as though it were the commonest of structures. Instrumentation of the urethral tract is not unsurgical or unnecessary, but it is to be avoided during the existence of acute urethritis and its sequelæ; orchitis, epididymitis, cystitis, pyelitis and vesiculitis.

While attending the surgical ward of the Charity Hospital a few years ago, there came under my care a patient suffering from chronic gonorrhea and cystitis, who could not speak English sufficient to give a history of his case. The sound indicated narrowing of the bulbous division of the urethral canal, which was duly incised. The patient was not benefited by this treatment; in fact, his condition was aggravated by an attack of urethral fever. The disease extended to the kidneys, and after a few weeks, like Asa of Sacred Writ, he slept with his fathers. There was no complaint, no investigation, no coroner. This lesson was not forgotten, and is now fully emphasized by the genito-urinary surgeons, who warn us of the danger of internal urethrotomy beyond the external sphincter. The urethral canal should not be instrumentally invaded during the course of active inflammation or during the existence of any of its concomitants. Should retention occur, it is safer to alleviate by aspiration; or if the retention is due to some pathological condition of the genito-urinary apparatus, it is better to make a false urethra by puncturing the perineum about three-fourths of an inch above the anal verge, pass the instrument directly to and through the apex of the prostate, when a catheter may be introduced and free drainage maintained. This procedure is fully described by Reginald Harrison. The bladder being drained in this way the offending constrictor and sphincter muscles become quiescent and certain morbid conditions are thereby relieved, as certain rectal diseases are healed by stretching the sphincter ani. Instrumentation aggravates engorged and irritable urethræ precisely as it does rhinital hypertrophy. This is readily demonstrated by probing nares, narrowed by spongy, hypertrophied tissue, or the granular membrane of middle ear catarrh, which causes puffiness, secretion, and pain.

It is well known that a small pile tumor or a fissure within the grasp of the sphincter ani muscle will cause severe pain; and that fissure and rectal engorgement are readily healed as well as relief given to pain by muscle rest. While the posterior urethra is not

so highly endowed with sensation as to give warning by acute pain, yet one can understand by analogy how rest of the vesical structures may exercise a curative influence. There is another complication which may occur when there are lesions in the grasp of the muscles of the urethral tract; namely, puddling and retention of urine, its admixture with blood and serum, which decompose and form toxic agents, causing local irritation and systemic infection, or urethral fever. For this reason internal urethrotomy of the deep portion of the canal posterior to the external sphincter is superseded by dilatation, or the external operation, which avoids this difficulty by providing free drainage.

Normal flowing urine is not baneful, hence operative procedures which provide for drainage are not followed by the disturbances which frequently pursue lesions of the deep urethra.

Several years ago, while endeavoring to blow a powder into the urethra for relief of a chronic urethritis, by pressing the blunt nozzle of a powder blower into the pouting lips of the urethral meatus, my patient expressed an urgent desire to pass water; attempting to urinate, he passed wind and no water. I repeated this procedure several times with success. This disclosure suggested the feasibility of irrigating the deep urethra and bladder without encroaching instrumentally upon the urethral tract. I endeavored to inject water in a similar way and failed. I found by accident a Kiefer nozzle, which was designed for irrigating the anterior urethra. I had no hope of reaching the deep urethra or bladder.

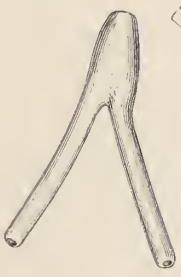

Fig. 1. Kiefer Nozzle.

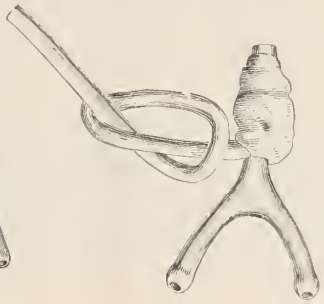

Fig. 2. Daggett Cannula.

My patients were induced to irrigate the urethra, using water as hot as it could be borne; to place themselves in a bath tub with the back resting upon the incline at the head of the tub, and flex the lower extremities. They all expressed themselves as being

much relieved by the treatment, and as it produced prompt results they were faithful in carrying out the instructions. Nearly all the cases reported that the water entered the bladder. One patient reported that he filled the bladder a dozen times the first séance.

Tieman and Company have constructed, at my request, a double cannula, Y-shaped, with a nozzle about three-fourths of an inch long. It is enclosed in a thin, inflatable, rubber sac, similar to the Gihon urethral tampon. This is introduced into the urethra so that as the bag is blown up it fills the navicular fossa, dilates the anterior urethra, and holds the cannula in place; the cannula may also be held by a modified Mitchell hood. A fountain syringe is filled with hot water, and placed from two to four feet higher than the pelvis, first being connected with the inlet tube of the cannula. The inlet is a trifle larger than the outlet. The instrument should be made of hard rubber, or some material that is a poor conductor of heat. Irrigation is a coaxing process and cannot be successfully forced. The constrictor muscles resent the impact of an injection as well as force of any kind. A tube is attached to the cannular outlet to carry off the waste.

The cannula is held by placing the forefinger in its bifurcation, and the gland is grasped behind its corona by the thumb and other fingers; the stop cock is turned and the water is felt working its way along the canal and passing imperceptibly into the bladder, causing a desire to urinate after an accumulation of sufficient bulk.

Water sufficiently hot to cause smarting of the skin is borne with a feeling of relief and comfort. If the disease is confined to that portion of the urethra anterior to the external sphincter, the irrigation is to be done in the upright position, but if the disease has extended beyond this barrier and involves the deep urethra or bladder, or both, the irrigation should be carried to these parts. The only obstacle to be overcome is the mixed muscular structure of the external sphincter; beyond this the way is clear, for the internal sphincter relaxes from the presence of fluid in the deep urethra. To overcome this obstacle it is essential to suitably posture the patient. An anterior urethritis may extend beyond the external sphincter in from one to three weeks' time.

To successfully carry out irrigation of the deep urethra and bladder, the patient should be placed upon his back, in the reclining position, for the purpose of securing general relaxation and giving a downward dip to the horizontal or fixed portion of the urethral canal. The shoulders should be raised, thus flexing the upper portion

of the body upon the pelvis, which is also slightly raised, the thighs are flexed and legs are supported by crutches to obviate tension. These flexures are in imitation of nature's method of relaxing the pelvic floor and its associated structures. It is well to bear in mind that the neck of the bladder is one and one-quarter inches behind and a little below the middle of the symphysis in the upright posture, and in the horizontal it is one-half inch lower.

This posture also gives the surgeon a chance to aid the passage of the sound or catheter when deeply obstructed, by passing the

[*Copyright, 1893.*]

finger into the rectum and guiding the instrument through the external sphincter and membranous urethra. Nature's method of relaxing these structures is indicated by the fact that all animals squat and hump the back when evacuating the pelvo-abdominal emunctories. Thus they relax the muscles of the pelvic floor as

well as the sphincters, which have a direct connection by interchanging muscular fibers and are intimately associated by nerve distribution.

The penis should be drawn tense, in order to straighten the canal and unfold the mucous membrane as much as possible. It will be observed that as the horizontal posture lowers the neck of the bladder that traction will aid in making comparatively straight the urethral way. During the process of irrigation the attention of the patient should be diverted.

Dr. Burnett, of Waterloo, Ind., says that straining, as if to urinate, will sometimes render successful efforts to inject fluid into the bladder. Lydston, of Chicago, also speaks of straining as being sometimes successful in this procedure.

A steady in and out flowing current of hot water, with a patient postured as described, after two or three trials relaxes the external sphincter and passes into the bladder, is the result of my experience, except there be organic change in the structure of the urethral canal. It is claimed that the cause of the greater frequency of the formation of stricture in the horizontal or fixed portion of the urethral canal is due to the accumulation and retention of discharges, which decompose and cause inflammatory processes and resulting plastic exudate. Certain it is that this division is most highly organized and is penetrated by a dozen or more patulous, glandular and follicular openings which pour their secretion into it. Washing away these discharges by irrigation, as described, would be preventive of stricture.

As well attempt to treat laryngitis by rinsing the mouth as to manage deep urethritis by injection. Irrigate to induce a due state of chronicity preparatory for other treatment; to cleanse and decongest. Medicate the irrigant according to the requirements of the case—use dehydrates, decongestives, avoid irritants.

I advocate irrigation as one of the measures to be employed in the treatment of complicated, stubborn, as well as acute, diseases of the urinary apparatus. I do not discredit other necessary means; I only question meddlesome medication and instrumentation, and advocate hot water irrigation as a preventive of complications and a preparative for other measures, as well as a remedial agent.

The prostate muscle is the male womb; following up the analogy we might learn a valuable lesson from our confrerés, the gynecologists, who have adopted the use of hot water irrigation,

ceased cauterizing erosions of the uterus, and consigned the uterine sound—that inciter of pelvic woe and menace to the legacies of love—to "innocuous desuetude." Yet it is a curious fact that the uterine sound is one of the best selling instruments in the surgical market. Several years ago Potter, of Buffalo, sounded the alarm in The Rise and Progress of the Uterine Sound, the second edition notes its Fall. The urethral sound is a useful, essential instrument, when guided by skill, judgment, and experience. It should not be passed with the patient in the upright position, or without at least flexure of the thighs.

RULES FOR PASSING THE SOUND.

1. Place the patient in the reclining posture, and make the flexures described—at least flex the thighs.

2. Lubricate the urethra by injecting alboline, or some refined oil; if the oil is not cocainized and it is desirable to use cocaine, it should be first applied.

3. Make the urethra tense by traction.

4. Avoid force; go slow; be patient.

5. Guide the instrument if obstructed in the deep urethra, by the finger introduced into the rectum.

6. All instruments are to be made surgically clean and perfectly smooth.

258 FRANKLIN STREET.

THE RELATION OF GONORRHEA TO PELVIC DISEASES IN WOMEN.[1]

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IT MAY seem to some of you that sufficient has already been said on this subject of late years, and that the matter might now be very properly dropped. I know that the journals have been full of articles, and that many of our societies have discussed the matter very thoroughly. But, nevertheless, in my intercourse with the profession I find that a great deal of misapprehension still exists, that many of the most important facts are only imperfectly understood, and that, as a result, a great deal of harm is being done by those who should know how to do better.

1. In preparing this article, I have drawn largely from the writings of Tait, Sinclair, Longyear, and others.

It is exceedingly important that the general practitioners should have this matter made very plain to them, because, as a rule, cases of this disease apply to them for the early treatments, and it is only after they have become bad, or almost incurable, that they apply to the specialist. The general practitioner often has the golden opportunity of eradicating the disease at its start, an opportunity which the specialist very rarely has presented to him. It is for this reason more than for any other that it seems to me that this discussion may be profitable and appropriate.

The importance of the subject cannot possibly be overestimated. The amount of mischief which is done by gonorrhea is almost beyond belief. It is only recently that we have come to appreciate this. But now, I think that we can truly say, in the light of modern discoveries and of an enlarged experience, that gonorrhea does vastly more harm than syphilis. It must be remembered that syphilis is a disease largely amenable to treatment, and that if seen early it can generally be cured, or, at least, its violence greatly mitigated. But in the case of gonorrhea in women, if the disease has once reached the Fallopian tubes or beyond, it is practically beyond our reach except by surgical measures.

Again, gonorrhea is infinitely more common than syphilis. I think I can truly say that for every case of syphilitic disease that I see in my consulting room, there are forty-nine cases of gonorrhea. In this connection let me quote a passage from Mr. Tait :

> Early in life I heard an eminent surgeon, one of my own teachers, say that if he were condemned to have a venereal disease, he would rather have syphilis than gonorrhea. I marveled and disbelieved, but now I know that if he included women in his thoughts of the subject, he spoke truly. Syphilis is, relatively, a harmless disease, may cause discomfort and distress, and even much pain, but I doubt if it ever kills women. If it does, where syphilis kills its tens, gonorrhea kills its thousands, and it would take the sufferings of a hundred cases of syphilis to make up for the long, weary years of agony of one case of gonorrheal pyosalpinx."

Noeggerath and Tait have thrown a flood of light on this subject, and for this the whole profession owes them a debt of gratitude.

But how has the importance of this subject come to be appreciated ? In this way : The knowledge of the true pathology of pelvic inflammations has been the stepping stone to it. Formerly, all pelvic inflammations were thought to be cellulitis, but recent

researches have shown that the teachings of Goupil and Bernutz were correct, and that the inflammatory troubles around the uterus are not in the cellular tissue, but are, in reality, in the tubes, ovaries, and surrounding peritoneum. Once this fact was admitted, the question arose as to what was the cause of the inflammation of the tubes, and this was soon answered by Noeggerath and Tait, showing that the gonorrheal poison was really at the bottom of it all.

When we look at the anatomy of the uterus and tubes, we can readily understand how very easily the poison can pass from the one to the other. Here we have a distinct line of communication between the vagina on the one side and the abdominal cavity on the other. What wonder, then, that a germ which has the power of spreading itself, as we know very well to be the case in the male, to distant organs by contiguity of surface, should, in the female, follow the line indicated and spread from the vagina, where the poison is first deposited, through the tubes to the peritoneum ? At first this was largely conjecture, supported only by clinical evidence, but with the discovery of the specific bacterium, the gonococcus of Neisser, the whole matter became quite clear.

If, then, as is indicated, the majority of pelvic inflammations have their seat in the tubes and ovaries, and if these inflammations are caused by the gonorrheal poison, every one who has practised gynecology cannot fail to appreciate the great importance of this subject.

Now, let us study the course of this disease more in detail. We admit, at the start, that it is a specific inflammation. What tissues can be infected ? As in the male, so in the female, the urethra is often the primary seat of the disease. From here it may extend into the bladder, from thence into the ureters, and even to the kidneys. This complication, fortunately, is rare, but I have seen several cases of ureteritis which could only be accounted for in this way.

Besides spreading upward from the urethra, the poison spreads downward to the vulva, or it may have its original seat there, and much of the primary inflammation is often a pure vulvitis. In every case, I think we can say without exception, the vulvo-vaginal glands become infected, and the disease lingers in this locality longer than almost anywhere else.

From the vulva it is generally supposed that the disease spreads

upwards into the vagina ; but this is, undoubtedly, misapprehension, as vaginitis is certainly one of the rare phenomena of gonorrhea. I wish to impress you fully with this fact, because it is not yet fully understood, and many a woman has been pronounced "clean" in whom the disease still lingered, although the vagina was apparently perfectly healthy.

It is not the vagina, but the cervix, in which this disease manifests its presence most actively, and here it is that the disease has its seat, and here it clings most tenaciously. The reason why the cervix, and not the vagina, is attacked, can be readily understood when we consider the nature of the mucous membrane of the vagina. It is thick, covered with numerous layers of strong epithelium, and offers great resistance to the entrance of the germ. Moreover, the secretion of the vagina is acid, which is not favorable to the growth of the germ. In the cervix, however, the conditions all favor its multiplication ; the thin epithelium, an alkaline secretion, and the absence of any interference by injections or anything of that kind. But once having gained its seat in the cervix, there is nothing to hinder it from making its way upward ; the conditions within the uterus are equally favoring, and the same is true of the tubes. The spread, therefore, from the cervix through the uterus to the tubes is only a natural sequence. Once in the tubes there is no obstruction to its passage into the peritoneal cavity, but when it reaches the serous membrane there seems to be a decided obstacle to its further progress. Evidently the germ does not grow well on the serous membranes ; and once it has reached this location, from the well-known peculiarity of the serous membrane, its seat is soon enclosed by a limiting false membrane, and thus all further progress is hindered. In all these cases, therefore, if the poison has made its way through the tube we find adhesions shutting off and limiting the disease.

So far I have described what may be known as an acute gonorrhea, but there is, unquestionably, another form of the disease, spoken of as the "latent" or "creeping" gonorrhea ; and this is the more deadly, because the more insidious. It does not attack the vagina at all, rarely shows itself even in the vulva, but expends its whole force upon the uterus and tubes, so that the patient, without any evidence of ever having had the disease of which she is cognizant, finds herself gradually becoming an invalid from a pelvic inflammation, the nature of which she little suspects. This creeping form is the kind that is propagated from men who have a gleet,

or in whom the disease has so far been cured that they are unconscious of any evidences of its existence.

This subject, however, belongs to another to elucidate. I do not propose to give a complete history of gonorrhea, but there are still a few questions which I would like to discuss.

Supposing that the disease has attacked the tubes and ovaries, spreading either from an acute or from a latent form, what are the results? Is it necessarily followed by a production of pus ? From clinical observation I feel very confident that it is not. Many cases of gonorrheal salpingitis recover entirely, nor is it necessary even that the woman should be forever sterile. I had one case under observation in which a young married woman was affected with a severe endocervicitis, soon followed by disease of the tubes and ovaries, which never caused her any great amount of inconvenience, which soon subsided, left no traces of its previous existence, and must have entirely disappeared, for after a time she bore a healthy, living child. Now, this, I admit, is the exception, but it is well to bear in mind its possibility.

In many of the cases we find that the tubes do not contain pus, but rather a fluid, either serum or blood. In some of them the walls are enormously hypertrophied, being in some instances half an inch thick, and in other cases, especially where the tubes contain water, the walls may be very thin.

Should the tube contain pus, the pus is by no means always confined to its original seat. It may gradually leak out, causing with each leakage an acute attack of inflammation, so-called "recurrent pelvic peritonitis," and it may finally make its way into the peritoneal cavity and cause an abscess. Such abscesses may rupture through any of the hollow viscera, the bladder and rectum being the commonest seats of the fistula. But that these abscesses have their origin in the tubes I have several times proved by operation, and in two instances by post-mortem examination.

The question of the conveyance of this disease from men who are apparently cured is one of the utmost importance. I urge upon you the necessity of fully appreciating the importance of this matter. It has been a common observation with me to see a young, healthy, robust girl converted by a year of married life into a pale, suffering, wretched invalid, and this all through the sin of the man who should have done the most for her. Oftentimes, to his credit, it must be said in the majority of cases, it is from his ignorance, and very often from the ignorance of his physician. Many

a man is told that it is safe for him to marry, and is given a clean bill of health when he should not have had one.

It is for this very reason, in order that you may be sure of your ground, that I urge upon you to carefully weigh this matter. Nothing is sadder, nor disgusts one more with the sins of humanity, than to see such a case as I have described; and yet they are of almost daily occurrence in my practice. I have in the hospital, now, no less than three such cases, upon whom I have been obliged to perform laparatomy and remove the tubes and ovaries, and in each case the history of the disease is perfectly clear, the women having been perfectly healthy up to the time of their marriage, and the husbands having confessed in each instance to an attack of the disease previous to marriage.

Am I not right, therefore, in insisting that every general practitioner should have the extreme importance of this subject pointed out to him?

There is one matter about which I must say a word, and that is diagnosis. Practitioners, as a rule, have been accustomed to rely upon vaginitis as the distinguishing feature; but, with that sign removed, how are we to distinguish a simple from a specific inflammation? This is often a very puzzling matter, and can only be done in one of two ways: We must either have a straight history of infection, or a probable or possible way in which infection may have occurred; or, failing these, we must resort to bacteriological investigation. There can be no positive proof unless we can find the gonococcus. The inflammation of the vulvo-vaginal gland, as shown by a slight secretion and redness around the mouth of the duct, is held by some to be specific. Others have thought that a urethritis was a constant concomitant; but in the latent form both of these will sometimes fail, as I have myself observed. We may, by induction, conclude that the trouble is gonorrheal if there is a possibility of infection, and if we find the proper lesions in the tubes and ovaries. But this will hardly be considered as a positive proof.

In the male the same thing is true and it may be laid down as a safe rule *no gonococcus, no gonorrhea, no danger of infection.*

THE judge of a certain court in Havre, France, decided recently that an optician who gives a patient advice as to the condition of his eyes and prescribes glasses to remedy defective vision is guilty of the illegal practice of medicine, just as if he had ordered remedies or given medical advice without possessing a diploma recognized by the law.—*Medical Bulletin.*

THE GONOCOCCUS IN ITS RELATION TO ASCENDING GONORRHEA IN WOMEN.[1]

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Gonorrhea is today classed as an infectious disease, dependent upon a specific microörganism, the gonococcus of Neisser. Since its original discovery in 1879, in the pus of ophthalmia neonatorum, this organism has been studied by many observers, with the result, as expressed by Baumgarten, of placing it "among the best proven microparasitic causes of disease."

In other words, this germ has been cultivated, portions of the pure cultures placed in the human urethra, a typical gonorrhea produced, the pus from this inflammation again yielding pure cultures of the organism. These experiments have been repeated so many times that the specific nature of the gonococcus is as completely established as that of any organism known today. No gonococcus, no gonorrhea.

This organism is a diplococcus, in form resembling the two halves of the coffee berry. It is usually found in groups of ten to twenty individuals, surrounded by an atmosphere of mucus, or situated in the interior of pus or epithelial cells. In an acute case the cocci are readily found. A drop of pus dried, stained with gentian violet or methyl blue, mounted in balsam and examined with oil emersion, will present these organisms in large numbers. Unfortunately, not less than five pseudo-gonococci have been described, which fact renders necessary other tests before positive conclusions can be drawn.

Wherever the primary infection may be, there is no question but that in women the cervix is the favorite habitat of the gonococci, and that from this region it is most difficult to dislodge them. Frequently lying hidden away between folds of mucous membrane, or in the mouths of glands they are ever on the lookout for fresh fields to conquer. This is the state of affairs in "latent gonorrhea," as described by Noeggerath. Acute manifestations may have passed or never been present; nevertheless, deep down in the crypts of the cervix, a few individuals are clinging tenaciously to life, weak and enfeebled though they may be. Plant these gonococci in fresh territory, where more favorable conditions for their existence can

1. Read at the annual meeting of the Medical Society of the County of Erie, January 10, 1893.

be found, and they awake like giants refreshed and produce an acute inflammation as an evidence of their presence. In women, pregnancy, the puerperal period, menstrual epoch, or any accidental congestion of the genital organs may offer an opportunity for further developments of these latent organisms. Too frequently the disturbance resulting in such cases is mistaken for fresh infection from without, whereas it is merely an exacerbation of a disease already present. Or again, without evidences of acute gonorrhea, these organisms of attenuated strength may gradually, under favoring conditions, creep into the uterus, and from there into the tubes, and produce no symptoms beyond those of a chronic salpingitis. Such a course commonly results in sterility, because the abdominal end of the tube becomes closed, and this affords an explanation of the fact why so many prostitutes are sterile. Another result ascribed to the presence of the gonococci is tubal pregnancy. The cilia of the cells being destroyed before the fimbriated extremity has become closed, the ovum remains in the tube instead of being carried to the uterus.

Very recently studies regarding the action of gonococci in the peritoneum have been made. There have been a number of deaths from general peritonitis, resulting from gonorrheal infection, but in these cases it is not certain that the gonococci have been the sole cause of the result. This question has not yet been definitely settled. There is no doubt, however, but that the gonococcus, alone and unaided, can produce a circumscribed inflammation of the peritoneum and play a very important part in the production of adhesions, always present in severe tubal inflammation. The main point I wish to impress is that the gonococci reach the tubes step by step, and never in leaps, and that during their progress there are points where they can be destroyed and their further advance prevented.

There is another question closely allied with that of gonorrheal infection, and that is the question of mixed infection. Mixed infection is defined as—

> The invasion of the organism by two or more kinds of bacteria, there being a causal connection between the invasion of the two germs. In such cases the bacterium possessing the greatest power of invasion precedes and, as it were, prepares the soil for the second germ. These forms of mixed infection are distinguished by a certain constancy of occurrence, and the possibility, and even probability, exists that if one germ has settled another will follow. Ordinary croupous pneumonia,

with its after diseases, is a typical example. The bacteria of pneumonia deprive the alveoli of the lungs of their epithelium, and fill them with an exudation which is a soil in which secondarily tubercle bacilli or pyogenic germs settle, and which may lead to the termination of the illness in phthisis, or formation of abscesses. *Sinclair.*

This theory of mixed infection has been applied by Bumm to the results of invasion by the gonococcus. It is claimed, for instance, that a previous gonorrhea renders a puerperal patient easily subject to a secondary invasion of pyogenic bacteria, giving rise to the so-called gonorrheal puerperal fever. In the tubes, also, it is claimed, the gonococci affect the tissues merely superficially, the formation of pus with destruction of tissue being due to a secondary infection by other germs.

This theory of mixed infection, ingenious as it is, is not necessary to explain the production of pyosalpinx after gonorrheal infection. I fail to find any instance recorded where the gonococcus has been found associated with any other bacterium in the tubes. It seems to me this condition of association must be found before we can accept the mixed infection theory as proven. On the other hand, Wertheim has reported seven cases where in the pus of pyosalpinx he found active gonococci, but *no other* bacteria. Furthermore, he found these gonococci not limited to the subepithelial tissue, but penetrating the wall of the tube and extending into the peritoneum itself. His investigations were most carefully made, pure cultures of the gonococcus obtained from the pus, and the male urethra inoculated in order to draw positive conclusions. The idea that the gonococcus alone cannot produce pus seems to be erroneous, for in these cases no other pyogenic bacterium was present in the tube.

We cannot, however, conclude that mixed infection never plays a part in gonorrheal pyosalpinx. It may afford an explanation of the behavior of some cases of pyosalpinx. Every operator knows that even in comparatively recent cases he may find a large collection of pus in the tubes with little or no general disturbance. On the other hand, some gonorrheal cases of pyosalpinx give rise to symptoms from the first. There is a tendency for the pus to escape from the tube, and there are a number of cases on record where the pus has either discharged through some of the hollow viscera or into the abdominal cavity, producing a fatal peritonitis. Such cases are the result of mixed infection, the pus containing the common, virulent pyogenic bacteria, and showing the same ten-

dency to make its escape by destruction of tissue as is displayed by acute abscess in other parts of the body.

The quiescent cases of pyosalpinx are probably due to the gonococcus alone, an organism limited in its action and comparatively short-lived. In several cases of pyosalpinx of but a few months' standing the pus has been found to be absolutely sterile, the local and general disturbance being very slight, the gonococci no longer finding sufficient nutrition in the tissues. This explains why escape of such pus during operation is followed by no bad results. In an operation reported by me a few months ago this escape of pus occurred to a greater extent than I have ever seen before or since; the intestines were literally floating in pus, and for twenty-four hours pus discharged through the drainage tube showing that some remained behind after closure of the abdomen. Had this pus not been sterile, certainly my patient would not have made the rapid recovery she did. To sum up, then, we may say (*a*) gonococci are the cause of gonorrhea. (*b*) They may remain latent for a long time in the cervix. (*c*) In the tubes and elsewhere they may produce purulent inflammation. (*d*) In some cases other germs are associated—the so-called mixed infection. (*e*) Gonorrheal pyosalpinx may result from simple or mixed infection. (*f*) The behavior of the pus in the tubes varies widely in the two cases.

Mode of Infection.—Gonorrhea in women usually results from an impure coitus, the gonococci being deposited in the vagina or thrown directly into the cervix. There are other possible modes of infection, however. In virgins and children the disease has occurred without sexual connection. Epidemics of the disease have been reported where every member of a family or school has become infected. Discharge from a specific ophthalmia or urethritis may be conveyed by the fingers, instruments, towels, clothing, etc. Even the water-closet, that time-honored excuse, is not without its dangers, and under certain circumstances can be a medium of infection. The great danger which constantly menaces the female is from the male patient who has been pronounced cured of his gonorrhea. Acute manifestations of urethritis in the male are obvious enough; the danger lurks in the chronic or gleety stage of the disease. There are several reasons why so many wives become infected from a chronic gleet in their husbands. First, because the doctor, not appreciating the risks to which a future wife may be exposed, does not impress upon the man the importance of continuing treatment until completely cured. Secondly, the doctor doesn't

know when the case is cured, and frequently discharges his patient too soon. Thirdly, the man himself, suffering little or no discomfort and not knowing the possible disastrous results, abandons his physician and later marries.

There seems to me to be a wide missionary field open to the general practitioner, namely, the instruction of the laity. Very few men would knowingly inflict upon a woman all the misery of gonorrheal salpingitis. Let it be impressed upon mankind in the most forcible language what a horrible disease gonorrhea may become in a woman, and we shall have both the physician and patient coöperating to diminish the dangers. Every general practitioner must awake to the fact that women's lives are being ruined every day, for which he is often responsible. Through him alone can the laity be instructed, but bear in mind that the blind cannot lead the blind.

How can we tell when a case of chronic gonorrhea is completely cured and all danger of infection removed? By bearing in mind that as long as there are gonococci present in the discharge, the case is dangerous. In chronic cases these bacteria are few and of attenuated strength, but when transposed to the healthy genital tract of the female they may increase sufficiently to give rise to an acute inflammation, or, on the other hand, may produce the latent and creeping form of the disease, giving no manifestations of their presence until the tubes have become involved. It takes about five minutes to prepare a drop of a suspected secretion for the microscope. In the acute or subacute forms of inflammation there is usually no difficulty in detecting the gonococci when present. Unfortunately, in a chronic gleet, on the other hand, it is extremely difficult to find the specific microörganism, owing to their paucity of numbers or admixture with other bacteria. The only sure method of detecting the gonococci in such cases is by making cultures. Until recently it was very troublesome to cultivate this germ, but Wertheim has perfected the technique so that any pathologist with a fairly-equipped laboratory can readily test a suspected discharge. By Wertheim's method the gonococci were detected every time, in spite of their small numbers and accidental or artificial mixture with other bacteria. In a chronic case, the urethra should be stimulated by the passage of a sound or injection of nitrate of silver solution and a little of the discharge resulting be used for cultures. This entails trouble, to be sure, but suppose your patient wishes an opinion as to whether he can marry safely

or not? Knowing what you do about this disease in women, can you conscientiously neglect any means of informing yourself about the condition of this man's urethra? Let me close this paper with a clinical picture. Last week I had in my office a patient with the following history: At the age of nineteen she was a bright, intelligent girl, having an occupation which not only enabled her to support herself, but through which she had accumulated over two hundred dollars in a savings bank. About six months ago she married. Within six weeks she had an attack of pelvic inflammation which confined her to her bed for several weeks. She got up a wreck. She has now a retroverted, bound-down uterus, enlarged tubes, and a vaginal vault so sensitive that she can hardly bear a cotton tampon in the vagina. The diagnosis was plain enough and was confirmed by her asking me one day whether I thought an inflammation her husband had before marriage was in any way responsible for her present condition. It seems that her husband was treated for gonorrhea several months before marriage. He was discharged cured, and he particularly inquired whether he could safely marry. He married in good faith and is completely broken down to see what he has brought upon his wife. The wife's savings are already spent, and by lying down two days she with difficulty works one, and is dragging out a miserable existence. Later, probably, I shall be obliged to perform a laparatomy.

Every gynecologist meets numbers of such cases and sees where the blame should rest. Sänger has said that the time would come when a father would inquire more closely into the condition of a prospective son-in-law's urethra and less into the condition of his pocket-book. When that time comes, there will be a falling off in the number of abdominal sections.

THE TREATMENT OF GONORRHEA AND GONORRHEAL PELVIC DISEASE IN WOMEN.

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The topic assigned to me for discussion was The Treatment of Gonorrheal Pelvic Disease in Women. To make the subject more complete, I have considered, in addition thereto, The Treatment of Gonorrhea in Women.

Vaginitis is not so common in the gonorrhea of women as is generally supposed. The more frequent expression of gonorrheal

infection is in the cervix and endometrium, especially the cervical canal. The course is not so universally acute as in the male. Often a woman may contract a gonorrhea which pursues a slowly insidious course from the cervix till the whole mucous tract of the genital canal is involved, and never have had a vaginitis.

The treatment of acute vaginitis must be as active as the tolerance of the inflamed canal will permit. Cleanliness and rest are of first importance. The patient should go to bed and remain there during the acute stage. Cleansing of the inflamed tract is best secured by frequent hot water douches. Often only a slowly-running stream of tepid water can be borne. But care in manipulation and persistency in the frequent cleansing will soon establish a tolerance to more active measures. As soon as the patient will bear it, I like to follow the hot douche with a tepid fifty per cent. solution of peroxide of hydrogen, or a ten per cent. solution of sulphate of zinc, or both, using the zinc last.

I know that many of the text-books advise against vaginal injections, giving as a reason therefor that the cervix and endometrium are more liable to infection in consequence. This I do not think can be substantiated by experience. If the uterine canal is not infected by continuity of mucous surface, then injections, which serve to wash away from the external os the swarms of gonococci, will certainly not serve to do it.

As soon as the vagina will tolerate it, a cylindrical speculum should be introduced, after a vigorous douche of water and peroxide of hydrogen, and all mucus removed with cotton swabs. Then pour into the speculum, at least, half an ounce of a ten per cent. solution of nitrate of silver. Gradually withdraw the speculum, thus allowing the silver solution to come in contact with the whole mucous surface of the vagina and vulva.

Neisser, who discovered the gonococcus, affirms that nothing kills this organism as well as a solution of silver nitrate strong enough to coagulate the contents of epithelial cells.

A cervical or endometrial gonorrhea, which has not yet extended to the tubes or pelvic peritoneum, if it be diagnosticated as such, should not be given time in which to complete its awful work. It may lie partially dormant there till something arouses it to activity again, when it may light up a pelvic peritonitis, salpingitis, and ovaritis.

To treat such a condition properly, the patient's cervix must be dilated and the whole uterine tract curetted. Some use rapid

dilatation under an anesthetic. I prefer to use slow dilatation, with aseptic laminaria tents. To do this operation, and have it successful, there are three principal points to attain. It must be done aseptically; it must be thoroughly done; free drainage of the uterine cavity must be secured for several days. Dilatation by aseptic laminaria tents, under full aseptic precautions, is as safe as any operation in surgery. The dilatation is slow, but it is thorough, giving an abundance of room in which to work, and, furthermore, the rugosities of the cervix are smoothed out, so that the curette can more effectively remove the cervical epithelium. The free drainage, after the operation, is secured by the thoroughness of the dilatation and the slowness with which the cervical tissues contract. I do not believe that this can be well done by rapid dilatation. I introduce a tent, as large as the cervix will admit, and allow it to remain from eighteen to twenty-four hours, then remove this and put in another as large as can be introduced. After removing the second tent under anesthesia, if the canal is not fully dilated, I usually complete the dilatation with the Hegar's hard-rubber graduated uterine bougies. Then thoroughly curette the uterine and cervical canal, wash out the *débris*, dry the cavity with sterilized absorbent gauze, and inject it with a ten per cent. nitrate of silver solution. Remove the excess of the silver solution and pack the cavity with strands of iodoform gauze, which may remain for from twenty-four to forty-eight hours. The patient should remain in bed for one week or more, the vagina kept clean, and the bowels free. If for any reason it be thought advisable, the uterine cavity may again be packed with iodoform gauze after removing the first dressing.

Gonorrheal inflammation of the pelvic organs of woman is either acute or chronic, from the therapeutic standpoint. The treatment of the acute stage varies little from that of pelvic inflammation due to other causes. This is essentially expectant in the vast majority of cases. Rest in bed, hot applications, and anodynes as required, constitute the routine treatment. Caution should be exercised in the too free administration of opium, since this inhibits intestinal peristalsis, thus favoring adhesions of the bowel. In nearly every abdominal section for tubal or ovarian disease, having a history of previous inflammation, there are adhesions of omentum or knuckles of gut to the diseased appendages. If less opium were given, and the bowels made to act daily, fewer bowel adhesions would probably result. Free catharsis frequently

relieves pain in these cases, and a loaded bowel sometimes makes the pain worse. If opium be given liberally at the outset, the patient will invariably cry for more anodyne the instant she feels the slightest pain returning. In all probability, most of these patients would be comfortable with less opium than is generally given.

If pus forms and it can be evacuated and the sac drained through the vaginal vault, such a course is expedient. When the abscess is healed, the patients are not always cured ; in fact, they are seldom cured. If pus is present and cannot be evacuated through the vaginal vault, abdominal section is necessary, as acute abscesses are more prone to point and rupture than are those of the chronic stage. A general peritonitis succeeding to a pelvic peritonitis, at however short an interval, demands immediate section, for a leaking pus sac, somewhere in the pelvis, usually is the cause of the general peritonitis, and must be taken out at once if the patient's life is to be saved.

Because a woman has acute pelvic disease of gonorrheal origin, is no positive reason why she should not entirely recover. Such cases I have seen, but they are but a small percentage of the entire number afflicted. The usual sequel is general pelvic adhesions with pus in tubes or ovaries, or in both. Many patients who rise from their sick bed apparently well, and whom we pronounce recovered, are not recovered. One, two, three, five, or ten years after the acute attack, their history of suffering during these years tells that they were not recovered. We all remember patients whom we thought well, who in the light of later developments proved the reverse. How many more, of whom we lose sight in the flight of time, repeat the same story.

The chronic stage of the disease is worse than the acute. Pain, menorrhagia, dysmenorrhea, sterility, chronic invalidism, is the picture. If you record her temperature for a week, the curve will probably be indicative of pus. Manifestly a local condition which will drag a woman to such depths of invalidism and suffering is not amenable to palliative treatment, else the *vis medicatrix naturæ* would have restored her to health.

If there be pus in her pelvis, nothing will help her till it is removed. Some non-operating gynecologists, in a spirit of conservatism, criticize those who do operate for their boldness in removing pus tubes and ovaries. They would consider it less heroic and more conservative to puncture and drain these when possible

through the vagina. It seldom happens that a pus tube or a tubo-ovarian abscess can be evacuated through the vagina. When they are so treated, they are generally slow to heal, and sometimes a fistula remains for years. Another argument against this procedure is that tubal and ovarian abscesses are generally multiple. Unless all of them are drained, it would be useless to open one. I here present for your inspection some specimens of pus tubes and ovaries which I have recently removed, all of which contain multiple abscesses. One, especially, seemed to be most favorable for puncture and drainage, as the largest abscess lay in Douglas' pouch, and was adherent there. In this same patient, however, there were three other pus cavities which such a puncture would not have drained, and section would have been a necessity to cure her, and undoubtedly the fistulous track of the puncture would have complicated the operation.

To remove the pus will save the patient's life; but will simple removal of pus, restore her to health if the tubes and ovaries are left covered and pressed upon by ever-contracting adhesions? By removing the pus the element which threatens her life is eliminated. The woman may be much improved by being rid of the constant poisonous influence of its presence. But she will continue to have pain, irregularities of menstruation, and a certain degree of chronic invalidism so long as the uterine appendages are involved in dense adhesions. Leaving out of consideration the pain and menstrual difficulties, there must be transmitted through the great sympathetic nervous system a profoundly depressing effect upon the innervation and vital functions of the individual. If this position is tenable, then we cannot be content with the evacuation of pus when present, even if it were always possible. We must remove the diseased and constricted tubes and ovaries. Sometimes it is necessary to fairly dig them out of their dense lymph investment. Occasionally it is impossible to remove them, but rarely. In such an event, if pus cavities exist, they should be raised and sewed to the abdominal opening; or, if that is impossible, they should be evacuated, cleansed, packed, and drained. In all sections where pus cavities have ruptured or leaked during operation, the abdomen should be thoroughly flushed and a drainage-tube inserted.

The endometritis which existed prior to, or was associated with, a salpingitis, generally needs attention after the patient has recovered from the abdominal section. I think a neglect of this

has not infrequently retarded or prevented the patient's complete restoration to health. It is always safe practice in such cases to curette the uterus, thus insuring a healthy endometrium and a complete involution of the uterus.

Right here arises a pertinent question: Do all women entirely recover their health whose diseased appendages are removed, and who survive the operation?

Their lives have been saved; the causes which wrecked their health are no longer operative. Do they again return to perfect health and usefulness? In most instances they do, while others do not. Is it not asking too much and expecting too much from a poor wrecked body and nervous system which have borne the strain of years of suffering, to at once regain their former vigor, because the source of all the mischief is, at so late a date, removed? As well might we expect, after the fire has been quenched, that the building which it has just destroyed should again rear itself in all its former beauty and symmetry. The longer a woman carries the causes of her invalidism, the more profound and irremediable will it become, always taking into consideration the vitality of the individual and her powers of recuperation.

Operation should be supplemented by Weir-Mitchell's rest treatment in most cases of profound invalidism. This does much to restore nervous equilibrium, build up the blood, improve the general nutrition, and store up nervous and physical energy. When this has been accomplished, the benefits of the operation will become manifest.

The earlier operation is resorted to in pelvic disease, the better will be the woman's chances of complete recovery. If her general health has not been undermined, she will promptly get well. Operation should not be the last resort. If the family physician recognizes the conditions present, his duty to his patient is not to let her wait, but to urge her to do that which is for her best interests. Until within the last decade all abdominal operations were done as a last resort. Many lives have been saved, and much suffering prevented, by the surgeons advising early operations. Still, there are those who wait too long. Procrastination here is not only a thief of time, but also the destroyer of one of the great blessings which goes to make life worth living—health.

DISCUSSION.

Dr. DeLancey Rochester: I am very glad that this subject has come up for discussion, for I think it is one of vital importance to the community. If the statements of the gynecologists are correct, and I believe they are, the question of the marriageability of a man who has once had gonorrhea is one of the greatest import. I believe that if a man has once had gonorrhea his urethra is rarely, if ever, in a healthy state afterward, and always carries with it the possibility of infecting any woman with whom he may have intercourse. Under these circumstances, I think it is worse than foolish,—I think it is *criminal*, for a man to marry. Therefore, I think it is our duty as physicians to frankly and fearlessly tell those who may consult us, that if they have ever had gonorrhea, they ought never to marry. I think, Mr. Chairman, that if the young men were *early* informed of the dangers of this serious disease, which is so frequently dismissed as "only the clap," there would be much less of it in the community, and the objects of the "social purity league" would be more rapidly attained by an appeal to the physical man to keep himself healthy for the sake of the physical well-being of the woman whom he may make his wife.

Dr. H. E. Hayd: The increasing frequency of this terrible disease makes our responsibility to our patients, and to society in general, a very serious matter. It is a disease which is not confined to the poor, but is peculiarly common in the better walks of life. In so far as we intensify its importance, and keep before the public its terrible possibilities, we are doing a grand work. But when we go so far as to say that clap in the male is an incurable disease, we assume a position unscientific and equally dangerous. That a young man should be blighted and forswear matrimony because he was the early victim of the clap, is absurd. No doubt, a very few cases remain uncured, but compared to the total number once diseased, the proportion must be very small indeed; because the percentage of men who have at one time in their lives had the clap is so great, that at least half of the women in the land would be the victims of salpingitis, pyosalpingitis, and ovarian abscess. Therefore, I maintain that after proper treatment and some months of entire absence of discharge, and taking the precaution to sound the urethra to relieve it of any hypersensitive patches and strictured areas, a man may marry and should marry, as discharging a duty he owes society.

I believe it was a very dangerous and sweeping conclusion that Noeggerath assumed in his cases, and I am satisfied that he did not—because he could not—eliminate all the other causes of pelvic mischief. Did he include the colds during menstruation, the repeated catarrhs, the result of our careless and forced methods of living, the dietetic social and sexual excesses, the needless and too often dangerous minor gynecological operations, and last, but

not least, the terrible practices that so many of our best women in society resort to, to thwart maternity. I admit the terrible frequency of gonorrheal endocervicitis, endometritis, and salpingitis, in our poor, unfortunate, and trusting wives, but I will not admit that the gonorrhea antedating marriage five, ten, and fifteen years is responsible for the pathological conditions we see, so long as so many other frequent sources of their production exist.

Dr. Mann called attention to a very important fact, and that is, how easily gonorrhea is overlooked in the female. I have repeatedly seen cases of undoubted cervical clap, and yet saw no vaginal discharge. Again, it is equally true that these latent and creeping gonorrheas of Noeggerath and Sinclair are the cause of the greatest amount of mischief, because a woman is often hopelessly invalided before she is conscious of the existence of any trouble. Be on the lookout for them, and put them to bed early, and you will be surprised to see how many and how often they quickly get well.

Another point in Dr. Frederick's paper which impresses itself upon me the more I see pelvic trouble: I am of the opinion that vaginal puncture should be done only when the patient is moribund, and, therefore, could not stand a radical operation, because we deceive ourselves by opening up one abscess and expect a cure when there remains three or four others simply separated from one another by a thin partition.

The PRESIDENT: Though the hour is late, I trust the society will tolerate a word or two from the Chair, in relation to this important subject.

The three papers that we have listened to cannot but prove instructive, and are a valuable contribution to the subject of gonorrhea in women. Some three or four years ago, in reviewing William Jap Sinclair's monograph, entitled Gonorrheal Infection in Women, I ventured to remark that the literature of this disease must be entirely rewritten, and the teachings of the schools entirely recast, in view of the awful consequences of neglect to entirely stamp out or prevent the propagation of this subtle, deceptive, and virulent malady. I further called attention to the fact that it was no perfunctory task to treat a case of gonorrhea in its acute stages. It has been treated heretofore altogether too indifferently, and in a light or trifling manner; physicians contenting themselves for the most part with ministering to the first distress, paying little heed to the secondary possibilities of the infection. At that time I also ventured to state that a woman who accepts offer of marriage finds herself treading upon dangerous ground, and that it becomes a problem of serious import when her answer may fetch her to a spring of woes unnumbered.

On another occasion I ventured to state that no contract of marriage should be made unless a competent physician had determined that there was no danger of infection on the part of the male. These seemed to be somewhat exaggerated or advanced

views at the time they were offered, but I am glad to note that the trend of the papers we have just listened to is in the direction of the arguments that I have heretofore advanced.

It is to Noeggerath and Neisser that we are indebted for the original research that has led to a newer pathology on the subject in question. Before Noeggerath published his Opuscule in 1872, we were much in the dark, and it has taken something like twenty years of continual hammering to rouse the profession to the dangers that lurk in an uncured or latent gonorrhea that Noeggerath then pointed out.

When Neisser announced his discovery of the gonococcus, it seemed to furnish a confirmation of Noeggerath's theory, and these two must ever go hand in hand as the culminating point of the new pathology which has not been successfully challenged by any competent authority.

The society, I am sure, feels very much indebted to the essayists who have so succinctly, and yet so pointedly, presented this subject, and I trust that the group of papers and the discussion will be offered to the Buffalo Medical and Surgical Journal for publication, so that they may be preserved for reference and study.

Dr. J. H. Pryor: A part of this discussion has seemed to me unscientific. We are considering a medical topic, not a moral one. The term gleet has been carelessly employed, and it becomes necessary to decide when a urethral discharge is infectious or not. The fact that a man has a discharge may mean much or little, dependent upon the character of that discharge, and the conclusion that it is dangerous and wrong for him to marry is hasty and unwarrantable. To my mind, this matter has been much exaggerated, and some of the radical opinions stated here today cannot be supported by clinical observation. We can only say, at present, that the question hinges on the presence or absence of the gonococci. I have risen to make a few remarks in reference to an experience gained in Germany, where investigations were being prosecuted to verify the work of Neisser. The points for detection are repeated examinations of the discharge, and sometimes producing an exacerbation by irritating injections. The importance of recognizing cocci in the pus cells, and remembering that they are not round, but somewhat crescentic (called by the Germans semmel-shaped), and always in pairs. It is sometimes difficult to decide between them and other forms, and they often exist in such small numbers during the chronic stage of gonorrhea as to elude detection. When the discharge is made up largely of mucus and epithelial cells, with few pus cells, there is usually present only a mild catarrhal condition tending to recovery. If the morning drop is a clap shred, there is usually a localized granular patch. Gonococci may or may not be present. We must be sure to bear in mind that chronic gonorrhea, especially of the deep urethra, may be present for an indefinite time and not be manifested by any dis-

charge whatever. In these cases, and they are quite common, it would be very superficial to place any dependence upon the absence of discharge.

In every suspected case, then, we should examine the morning urine for clap shreds. While working in Gerhard's laboratory, in Berlin, his assistants and I found gonococci in these shreds, several times five years after an apparent cure, and in two cases, eight and ten years after the cessation of the acute attack. So far as I know, the results obtained by VanVoorden at this time, have never been published. They were very interesting, as showing the chronicity of gonorrhea, and the long life of the gonococci in the deep urethra after all symptoms had disappeared. Gerhard directed the examinations with the idea of proving a conviction that the gonococci were quite generally causative of rheumatism, and this led to the results just mentioned. It is not an easy matter to decide when it is safe for a young man who has had gonorrhea to marry. I disagree most emphatically, however, with some of the views presented today. There are scientific methods for settling the question, and no need of sweeping generalizations. I believe that any discharge is suspicious until it is known to be innocent, and we can only determine this fact by repeated and careful examinations extending over a long period. Every clinician could, after reflection, describe cases which support both sides of this controversy, but we can gain little by basing opinions on inexact data. When we speak of gleet, let us know what the term means, and I, for one, ask the right to doubt any statements that a case of pyosalpinx is due to gonorrhea in a husband, unless the pus is known to contain the specific germ. That such infection occurs frequently, there seems to be no ground for doubting, but the tendency to ascribe certain conditions to one cause has been noticed before in the history of medicine, and, perhaps, in time more conservative ideas will prevail in regard to this very important and interesting subject.

Hydrochloric Acid in Vomiting.—Dr. Alkiewicz mentions that in various kinds of vomiting he has found great benefit from small and frequent doses of hydrochloric acid—well diluted, of course. In one case of the vomiting of pregnancy, where none of the ordinary remedies had any effect, hydrochloric acid proved successful, though it had to be given for a fortnight before it entirely arrested the sickness. In more than ten cases of cholera nostras in adults, with vomiting, hydrochloric acid was given with good results. Again, where vomiting was due to acute dyspepsia from errors in diet, and where it occurred in the course of influenza, scarlet fever, or other contagious diseases, the same remedy proved equally efficacious.—*Occid. Med. Times.*

Translation.

IODIDE OF STRONTIUM IN CARDIAC AND OTHER AFFECTIONS.

By DRS. LABORDE and MALBEC.

(Translated from the *Tribune Medicale*, 15th December, 1892.)

The clinical application of iodide of strontium has been retarded on account of the extreme difficulty which was first experienced in procuring a chemically pure and at the same time a stable salt.

The facility with which commercial iodides give up their iodine, and the frequent presence of the toxic iodate, has on more than one occasion been commented upon at the French Academy of Medicine, and it has been found necessary to issue a caution against the strontium iodide in any other than the crystallized form.

The most practical mode of manufacture is to decompose a solution of iodide of iron by sulphide of strontium. The resulting solution is rapidly filtered in an atmosphere deprived of oxygen, and the sulphide of iron separated; the solution of iodide of strontium is then evaporated, crystallized and recrystallized several times, in order to obtain a perfectly pure salt, unchanged by the action of the air and light.

Iodide of strontium crystallizes in hexagonal tables containing six molecules of water.

The question of absolute purity is very important, otherwise it rapidly decomposes when exposed to the air.

The problem of producing a stable and crystallized salt, without which exact physiological observation was hitherto impossible, has been solved by Paraf-Javal. From the investigations reported to the Biological Society, May 28, 1892, it was shown that the action of iodide of strontium on the circulation of animals is similar to that of iodide of potassium.

Practical clinical experience with strontium iodide (Paraf-Javal) has fully confirmed the supposition that the iodide of strontium would present the same advantage over the potassium salt as its bromide analogue, and a series of observations was undertaken by one of us, on account of the non-poisonous character of the salt as compared with potassium iodide.

Observation I. A lady, aged fifty, with chronic endocarditis, and an enfeebled action of the heart, suffered from considerable dyspnea together with symptoms of angina pectoris. The patient was treated for some time with iodide of potassium, which gave considerable relief, but she was unable to continue its use any longer on account of the gastric-irritation to which it gave rise. The *standard solution of strontium iodide* (thirty grains to the ounce) was, therefore, substituted, beginning with one tablespoonful, subsequently increased to two tablespoonfuls daily. The change proved eminently satisfactory, and within twenty-four hours a marked improvement in the symptoms was observed, and the amelioration was maintained by its continued use.

Observation II. A young professor affected with a cardio-pulmonary affection, characterized symptomatically by attacks of depression at times, taking the form of angina pectoris with a state of incomplete syncope. The heart presented signs of chronic endocarditis with a predominant determination on the left side of the auriculo ventricular orifices, which is the seat of an *insufficiency* shown by a rude *souffle* subsisting at the left and at the point of normal *bruit*, as well as by a marked systolic tendency of the radial pulsations.

The patient had been benefited by iodide of potassium, but was unable to continue its use, even in small doses of from fifteen to twenty grains daily, without gastric derangements, which prevented the proper functions of digestion and alimentation. He was very weak, discouraged, and a prey to attacks of precordial agony. A tablespoonful of the *standard solution of iodide of strontium* was administered, and increased later to a tablespoonful and a half daily. The effect was most remarkable, and in a few days he was able to resume his occupation, and gradually the functional phenomena to which he was subject disappeared, the nutritive functions improved, and a fair condition of health is now established.

Observation III. Our patient is a talented artist, aged fifty years, who has suffered for a long time with an endocarditis, localized on the left side of the heart, and of the auriculo ventricular orifice with arteriosclerosis and a complication with considerable gastric ectasis, and rebellious dyspeptic conditions. He is subject to attacks of depression which recently have become of extreme gravity and which affect his respiration, causing a loss of consciousness, and a fear of death. Small doses of iodide of potassium had previously helped him, but had to be abandoned. A tablespoonful of iodide of strontium solution was prescribed, and after the third day there was considerable improvement of the cardiac functions and the dose was increased to two tablespoonfuls daily; this was continued for a month; the attacks of oppression and precordial agony had disappeared, and there was considerable improvement in nutrition.

Observation IV. The patient is a powerful man, forty years old, who is subject to frequent attacks of neuro-muscular rheumatism which manifested themselves on the heart by phenomena of pain, dyspnea, and precordial oppression. Auscultation demonstrated a commencement of endocarditis, and particularly of the aortic ventricular orifice. The patient had never been submitted to any special treatment for this cardiac complication. Two tablespoonfuls of *solution iodide of strontium* (Paraf Javal) were administered, which was perfectly tolerated. Under its influence the dyspnea and oppression disappeared entirely in the course of two months.

Our conclusions upon these and other observations show that iodide of strontium by its favorable and rapid action in morbid cardiac and cardio-pulmonary troubles, are that this salt is superior and preferable to iodide of potassium, for in no case has any symptom of intolerance, such as cephalalgia, coryza, with nasal and salivary hypersecretion, cutaneous eruptions, etc., been noticed.

It is, therefore, permissible, on the physiological and clinical evidence, to consider iodide of strontium as an excellent substitute for the iodide of potassium, with this considerable advantage, that, although the dose is the same as that of the potassium salt, it may be increased when necessary without having to fear the intolerance which would almost certainly follow larger doses of the latter.

The indications for the use of iodide of strontium are, of course, those of iodide of potassium, in which are included cardiac and cardio-vascular affections due to arterio-sclerosis; lesions of the myocardium and intra-cardiac orifices, asthma, angina pectoris, and in chronic and muscular rheumatism and gout, it is also indicated in the treatment of that large class of skin affections recognized to be amenable to iodine, also in inflammations of a strumous type.

It may be advantageously employed in inflammatory conditions, such as pleurisy, peritonitis, either simple or tuberculous, pericarditis, certain forms of pneumonia, and in pulmonary emphysema.

This medicament is clearly indicated moreover in the treatment of enlarged glands, such as the amygdalæ, in mammary hypertrophy, and in enlargement of the uterus or prostate.

Iodide of strontium (Paraf Javal) does not set up gastric irritation or cause palpitation of the heart. It is speedily eliminated by the kidneys, when in its various applications the special action of the Iodide is supplemented by the beneficial effects which Strontium has been proved to exercise on the functions of nutrition.

Progress in Medical Science.

MEDICINE.

By WILLIAM C. KRAUSS, M. D.

THE VALUE OF TRIONAL AS AN HYPNOTIC.

Dr. Brie, Bonn. (*Neurologische Centralblatt*, December 15, 1892.) Trional is described as a powder consisting of tablets of a melting point of 76° C., readily soluble in alcohol and ether, but less soluble in water, requiring 320 parts of water at ordinary temperature. Trional belongs to the same chemical family as sulfonal and tetronal, but containing three ethyl groups instead of two as in sulfonal, and four as in tetronal. Its chemical composition is a diethyl sulfon methylmethan, and was first described by Kast and Baumann. The drug was given in fifteen to twenty-five grain doses, fifteen to forty-five minutes before retiring, and in those cases in which pure insomnia existed, sleep followed in from fifteen minutes to one and one-half hours after administration. Dr. Brie used it chiefly in mental diseases, dividing his cases into four classes. The first class included mild forms of melancholia and hypochondria; eleven cases were under treatment, and in all, seven to nine hours' sleep followed. The second class included four cases of agitated melancholia; these cases had been previously treated with opium, chloral, etc., without any favorable results. The first two cases were given thirty grains of trional with happy effect; the third patient was obliged to take forty grains, and the fourth patient was given fifteen grains.

The third group included the maniacal cases and paretics; ten cases were treated with but one failure, and that because of stomach irritation, necessitating abandonment of the drug. In these cases other hypnotics had been tried, such as chloral, paraldehyd, sulfonal, and tetronal, but the results were not as satisfactory.

The fourth class included paranoia and the hallucinations; eight patients were treated and all were successful. Besides these mental diseases—insomnia, due to overwork, worry, excluding pain, trional gave refreshing sleep. Trional differs from sulfonal in that the latter takes effect later and has an accumulative action; from tetronal, in that tetronal takes effect quicker, but the effect wears off sooner.

As a rule there are no disagreeable after-effects. (The translator has employed trional in a few cases of insomnia with excellent results, ten grains of the drug producing good, refreshing sleep.)

A NEW SIGN IN THE DIAGNOSIS OF INTRA-CRANIAL AFFECTIONS.

In the January number of the *Anales del Circulo Medico Argentin*, Dr. Masi has an interesting article describing a new diagnostic symptom. The great importance of thoracic vibrations—their absence or exaggeration is appreciated in detecting diseases of the thoracic cavity. The same vibrations which occur during articulation are conveyed to the base of the skull, and thence to the vertex, where they can be detected as readily as over the thorax. Apply the palm of the hand to the head and one to the thorax, and the vocal fremitus will be as distinct to the one hand as to the other. If this sign, through its variations, can be utilized to help in the diagnosis of intra-thoracic affections, cannot it be likewise utilized in the diagnosis of intra-cranial affections? This is the question which the author tried to solve. A patient was brought to the hospital, who, through injury, sustained a fracture at the base of the skull with ramifications as far as the upper part of the temporal regions on both sides. All the common signs of fracture of the base, such as bleeding and escape of arachnoid fluid from the ears and nose, etc., were present. Over the left temporal region there was found to be depression of about two centimeters in diameter. The patient rallied, and on the eighth day, as the doctor was examining the head, the patient spoke and a distinct fremitus was perceived over the whole head, except over the depressed bone in the left temporal region. This was noticed by members of the hospital staff and regarded as a strange phenomenon, which would, perhaps, enable one to apply it to other brain and skull lesions. In a normal head, therefore, the vibrations should be distinctly perceived over all portions of the skull, but in those cases where there is increased pressure, such as tumors, abscesses, and hemorrhages, or where there is thickening of the dura or adhesions between the brain and the skull through the dura, or fractures, absence of this vibration would be expected. The author describes the sign as Cranial Vibrations, and awaits further corroboration of his discovery.

THE RELATION OF GENITAL IRRITATION, IN THE MALE AND FEMALE, TO NERVOUS AND MENTAL DISEASES.

THE above was the title of an interesting paper read by Dr. L. C. GRAY, of New York, at the recent meeting of the New York State Medical Society.

A careful review of the history of genital irritation was first given, dating back to the belief of Hippocrates, (which has been the source of the modern doctrines upon the subject,) and this was followed by a discussion, in some detail, of the literature which sprang up after the publication of Stanley's paper, in 1833, as well as the further revival of the question by Sayre, in 1870.

Dr. Gray then went on to say that there was no proof that genital irritation was capable of causing any of the organic diseases of the nervous system, but that it might possibly act as an exciting or aggravating factor of certain lesser nervous diseases. In mental diseases, however, relief of genital irritation has proved, in his opinion, to be a much more valuable method of treatment than it seemed to be in the lesser nervous affections. He called attention, however, to the fact that there were two great classes of mental diseases—namely, the organic insanities and those which are known as the psychoneuroses—and that, so far as was yet known, it was only in the latter that relief of the genital irritation was of any value. He then gave the histories of several classes of insanity in which operations upon the female genitalia had given prompt and permanent relief. He was not, however, willing to believe that all the relief was due to the removal of the genital irritation, because simple etherization had sometimes worked almost as well, and, in one case, had done quite as much as the operation itself would have effected. He furthermore called attention to the fact, that if the operation upon the female genitalia was of any value at all in the relief of mental disease, it should only be done at a proper stage of convalescence. His conclusions were as follows :

1. That there is no proof that genital irritation, in the male or female, can cause nervous or mental disease, except in the predisposed individual.

2. That the proof is not yet absolute that genital irritation can produce nervous or mental disease, even in the predisposed individual.

3. That there is undoubted proof that relief of genital disease, in the male or female, will often relieve certain nervous

diseases, such as migraine, hysteria, epilepsy, simple nervousness, and hallucinatory insanity.—*Medical and Surgical Reporter, February 11, 1893.*

ELECTRICITY IN THE TREATMENT OF DIARRHEA OF CHOLERA.

In the *Progrès Médical* for January 28, 1893, Dr. Arslan reports upon the use of electricity in the various forms of diarrhea, particularly of cholera, as practised in the wards of Dr. Jules Simon, at the Hôpital des Enfants-Malades. Having observed that the faradic current applied directly to the abdominal walls succeeded in stopping the diarrhea in the first few cases tried, it was used in all cases, even in intestinal tuberculosis, which is generally rebellious to all forms of treatment, with gratifying success. In the diarrheas of dysentery and ulcerated entero-colitis did the method fail.

The simplest form of a faradic battery is sufficient, and the current should be strong enough to produce visible contractions of the abdominal muscles. Both poles should be placed upon the abdomen for intervals of one to two minutes. As a rule, after the third or fourth treatment the diarrhea ceases, accompanied with amelioration of the other symptoms, as fever, vomiting, anorrhexia, etc. In some cases a single application is sufficient. No inconveniences are observed by the patient and the current is well borne. During the past Summer (July, 1892,) the writer had occasion to treat two cases of cholera at the above mentioned hospital, one a child aged nine years, the other twelve. In both of these cases the diarrheas ceased after the first application. In some thirty cases treated in the same way, the results were in every way favorable, although several applications were necessary. No other treatment was instituted—save hygiene and strict attention to diet—and the favorable results may, without contradiction, be attributed to the faradic current.

THE SYRUP OF HYDRIODIC ACID AND ITS USES.

Dr. Reynold W. Wilcox, Professor of Clinical Medicine, at the New York Post-Graduate School and Hospital, comes to the following conclusions regarding hydriodic acid :

1. In syrup of hydriodic acid we have a palatable and efficient method of administering iodine.

2. The dosage is under control. We can saturate the patient with iodine, yet iodism can be avoided.

3. The field of usefulness is greater than that of iodide of potash or any other alkaline iodine.

4. The failure of administration in former times was due to the impossibility of making a high-class pharmaceutical which should be of sufficient iodine strength and absolutely permanent; here the recent improvements in manufacture are of the greatest importance.—*The Post-Graduate, February, 1893.*

NOCTURNAL INCONTINENCE OF URINE AND PHIMOSIS.

In an article on the above subject by Dr. E. Loumeau, in the January number of *Annales de la Policlinique de Bordeaux*, the writer divides the different varieties of incontinence under five heads:

1. Incontinence of urine of purely psychopathic origin. (Theory of T. L. Petit.)

2. Incontinence of urine due to vesical irritability. (Theory of Trousseau.)

3. Incontinence of urine due to a faulty contractility of the sphincter vesicæ, or to anesthesia of the urethra. (Theory of Guyon.)

4. Incontinence of urine due to paralysis of the bladder and sphincter.

5. Incontinence of urine due to epilesy.

Under the second head—vesical irritability—the author mentions the following causes: (1) Peripheral irritation, such as phimosis, atresia of the meatus, hypospadias, oxyurides, hemorrhoids, fissures, etc. (2) Exaggerated reflex excitability of the cord. The author regards phimosis as the most prolific agent in this classification. Trousseau appears to have been the first to call attention to this fact in 1860, and since then Forni, Tuffier, Beard, Bouisson, Duplay, Schwartz, Birger, and many others, have called especial attention to this form of enuresis.

TREATMENT OF MIGRAINE.

Prof. Hare (*College and Clinical Record*) recommended the following treatment for migraine: During the intermissions give cannabis indica in small doses, (gr. ¼ of the extract,) and when the patient feels that an attack is threatening give a large dose (gr. j.) with tincture of gelseminum, gtts. xx., and usually the attack may be aborted.

ANGEIO-NEUROTIC EDEMA.

In the *American Journal of the Medical Sciences* for December, 1892, Dr. Joseph Collins, of New York, has made a thorough and complete study of angeio-neurotic edema—examining critically all the published cases, and, as a result, has drawn the following conclusions :

The conclusions concerning the pathology of this disease are :

1. That there exists a variety of edema attended by such striking characteristics of its own that we are justified in referring its origin to the nervous system.

2. The seat of the manifestation of the lesion is probably in those vessels and lymphatics which pass through the corium to the subdermal tissues.

3. It is probable that although the lesions or the irritants on which the disease is dependent may attack other parts of the system, yet the result directly appears through the sympathetic system.

4. Evidence concerning the bearing of trophic influences in the production of the disease cannot be produced. But when trophic changes do occur, they are more plausibly attributed to the changes brought about by the oft-recurring edema, *per se*, than to influences exerted through the nervous system as true trophoneuroses.

5. It is quite possible that in the future its causation may be attributed and shown to be dependent upon products manufactured and ordinarily disposed of within the system, but which, acted on by sinister influences, either inherited or acquired, result in the temporary disturbance of the vasomotor system, which is manifested in various parts of the body, depending, as does the analagous condition of the distribution of blushing and flushing, upon structural peculiarities, either central or peripheral, or upon inherent predilections.

6. This condition has a close relationship to the many edemas spoken of, and also a family relation with many of the arthropathies as yet not well understood, but known to be directly caused through the agency of the nervous system.

7. It must be admitted, from clinical evidence, that the affection in question has a family relation with other vaso-motor neuroses, such as exophthalmic goitre and urticaria.

Abstracts.

SYMPTOMS OF SULFONAL POISONING.

Dr. Lépine, of Lyons, France, in *La Semaine Medicale.* The symptoms are the same in all the cases. Prominent among them are: Gastro-intestinal disturbances, vomiting, and constipation; in some cases symptoms referable to the nervous system, such as failure of coördination and diminution of the reflexes; an exanthematous eruption in somewhat rare cases; lastly, diminished secretion of the urine, which is of a peculiar red color, and contains some biliary pigment, mucin, and albumin, with leucocytes, numerous red blood cells, and epithelial casts, a sign of renal inflammation. In one case, the urine examined by Jolles was acid, with a low percentage of chlorides and phosphates, but contained a large quantity of uric acid and indican; moreover, tyrosine was present. In exceptional cases, the breath smells of acetone. Death is usually due to syncope.

It is noteworthy that in all the cases of death from sulfonal poisoning which have been recorded, the patients were of the female sex.

In the absence of any marked pathological changes in the human subject, Dr. Kast has undertaken some experiments on animals.

In a first series of experiments performed on three dogs and three rabbits, sulfonal was given (in doses of from half a gramme to a gramme—eight to fifteen grains—in the case of the dogs,) until death occurred. This took place in about twenty days. The urine of the animals contained red blood corpuscles, but no hemato porphyrin. In a second series, the animals were killed early in the experiment, and in a third, poisoning was gradually induced in order to reproduce as closely as possible the condition found in man. In all these cases the kidneys were carefully examined after death, but no important change was discovered, the epithelium of the glomeruli and convoluted tubules was normal, but in dogs which had died of advanced poisoning, hemorrhage was found in the glomeruli, and the epithelium of some of the tubules was the seat of calcareous infiltration.

Dr. Kast's researches have shown that sulfonal becomes decomposed to a large extent in the body, and Dr. Smith has demonstrated that *sulphonic acid* was one of the products of this decomposition. What was wanted, therefore, was to ascertain whether this acid

possessed any special toxic properties or not. For this purpose Dr. Kast administered on one occasion thirteen kilogrammes and four grammes (over twenty-six pounds avoirdupois) of sulphonic acid to a dog, and ten grammes (two and one-half drachms) on the following day. The urine was rendered very acid, but contained no pigment. The presence of hematoporphyrin is not, therefore, due to this acid.

Whatever may be the truth, a fact is now definitely established, viz., the danger which the patient runs whenever hematoporphyrin appears in the urine. As soon as this is detected, the administration of sulfonal should at once be stopped.

CONTRIBUTIONS TO CEREBRAL SURGERY.

Drs. McBurney and Starr, of New York, made a joint report of three operations for cerebral neoplasms. Though unsuccessful, the authors felt that all such cases should be added to the literature in order that a true estimate of the value of cerebral surgery might ultimately be made.

The first case was one in which a diagnosis of a probable gumma of the left frontal lobe was made. The chief symptoms were a progressive development, within two years, of headache and nausea at times, localized pain, increasing hebetude, dimness of vision, with optic neuritis and exaggerated knee-jerk and ankle clonus upon the right side, with right hemiparesis. The operation was performed, and an encapsuled sarcoma was removed from the left frontal lobe, three and one-half by one and three-quarter inches in size. The patient died in eight hours. In connection with this case Dr. Starr took occasion to lay considerable stress upon mental symptoms as of value in the localization of frontal lobe lesions. Chief among the mental symptoms are a loss of self-control, lack of power of concentration, and psychical dulness. Such symptoms were present in a large number of cases collected by him.

The second case was one presenting the following symptoms: Choked disc, headache in the occipital and frontal regions, tinnitus aurium, vertigo, numbness of the left side of the face, drowsiness, nystagmus, diplopia, and mental dulness. Later there was optic atrophy, deafness in the left ear, staggering gait, weakness of the right hand, and staggering to the right in walking. On the right side the knee-jerk was exaggerated, and there was ankle clonus. As the symptoms pointed particularly to the cerebellum, an operation

was performed, but nothing abnormal was found about the cerebellum, except evidence of great brain pressure. The wound was closed and remained aseptic, the patient recovering nicely from the effects of the operation. He died in about two weeks. At the autopsy a glio-sarcoma was found pressing upon the left half of the cerebellum and left half of the pons varolii.

The third case was one presenting the common symptoms of cerebellar tumor. The case was a child of seven. There was headache, vomiting, staggering gait, and optic neuritis. Upon operating, the exterior of the cerebellum was found to be normal. An aspirating needle introduced into its substance withdrew two drachms of clear fluid from a cyst. The child died suddenly six days after the operation. At the autopsy a small glio-sarcoma was discovered in the cerebellum and in its center the small cyst which had been evacuated.

One of the chief features in all of Dr. McBurney's operations upon the head is his method of opening the skull. He leaves the periosteum upon the bone and with the chisel cuts out such an area of bone as is required in his judgment, leaving the bone, however, attached by an isthmus which is broken through as he elevates the piece. Thus the piece of bone remains attached to the periosteum, and upon being replaced after the operation grows fast again without difficulty and with no interference with its nourishment. Besides the evident advantages of the procedure, it really takes less time than the operation with the trephine and bone-forceps.—*The Medical Week.*

BREAD AND DYSPEPSIA.

The conclusion that wheat bread is unfit for dyspeptics, sometimes jumped at because ill effects are noticed to follow its use, is erroneous. On the contrary, it has been pointed out by Bouchard and others, that farinaceous food is peculiarly adapted to some dyspeptic patients. It is the microbes in the starch, which are capable of producing irritating acids, that cause the trouble. To avoid this, Bouchard recommends that only the crust or toasted crumb of the bread be used by dyspeptics, particularly those whose stomachs are dilated. The reason of this is explained by the fact that baking temporarily, though not permanently, arrests the fermentation of dough. When it is again heated by the warmth of the stomach, the fermentation is renewed. In cases where the bread is toasted brown through, the fermentation is stopped permanently.—*Food*, February, 1893.

Correspondence.

(*Pan-American Medical Congress Bulletin.*)

GERMANY AND THE PAN-AMERICAN MEDICAL CONGRESS.

AN OPEN LETTER FROM PROFESSOR CZERNY, OF HEIDELBERG, AND REPLY BY SECRETARY-GENERAL REED.

(Translated from *Deutsche Medicinische Wochenschrift*, January 12, 1893, p. 47.)

An Open Letter

To Claudius H. Mastin, M. D., LL. D., Mobile, Ala., President of the American Surgical Association, in reference to the Pan-American Medical Congress:

Honored Sir and Colleague—You were kind enough to extend to me, December 3, 1892, a personal invitation to attend the Pan-American Medical Congress, to be held at Washington, September 5 to 8, 1893. According to the preliminary announcement, and to your communications, the Congress, in connection with the Columbian Exposition at Chicago, will offer so many attractions that I exceedingly regret not to be able to accept so amiable an invitation extended to me by one of the most prominent members of the body of American physicians.

As the reasons which prevent me from attending might be of interest to the German physicians, you will certainly pardon my desire to make these reasons more generally known in this manner.

At the first glance one might have been impressed with the idea that the Pan-American Congress was intended to be a rival to the long-prepared International Medical Congress, which is to be held at Rome from September 24 to October 1, 1893. However, as at the former international expositions, almost always contemporary medical and scientific congresses took place, it appears but just that the American physicians should also avail themselves of the opportunity of meeting on their own continent. But since the physicians of all civilized countries are united in the humane endeavor to rather mitigate than increase difficulties between nations and continents, where such exist, I therefore think any intention to injure the International Congress by the Pan-American, must be entirely excluded.

Perhaps the meeting of the International Congress might be postponed eight days, which, for several reasons, would be more desirable. With earnest intentions and favorable weather, it ought to be possible to make the trip, with the modern fast steamers, from Washington to Rome, from September 9th to September 23d. *It would not be a bad idea if those members who desire to make the journey, would do so jointly, directly from Washington to Rome, on a steamer chartered expressly for that purpose*, in order to bring the greetings of the rising capital of the promising West to the old Metropolis of European civilization.

A more serious consideration to visit the Pan-American Congress is entertained by me regarding the question of languages. In section ninth of your programme it says: "The languages of the Congress shall be Spanish, French, Portuguese, and English." The German language is probably excluded because it is nowhere official language in America. If this consideration should have prevailed, then the Dutch and Danish languages ought to have been permitted, since these languages are in official use in America. Be this as it may, *I do not think that the physicians of Germany can take part in the proceedings of the Pan-American Medical Congress, if they are not permitted to read their papers in German*, while any other language but the English is admitted at the Congress. It must be remembered that also at the International Congress "Remarks are permitted in any other language, if any of the members are willing to translate them into one of the four official languages."

I shall not mention the work done continually for the science of medicine in the German language, but I desire to refer to the great number of prominent American physicians who have received the best part of their education in German schools; and to the numerous German physicians who practise with success in America, and who have added so much to the great reputation in which American medical literature is at present held in the whole world. Indeed, I am inclined to believe that North and South American physicians will frequently be able to communicate with each other in the German language, learned by them in our universities. If I am not mistaken in this, I certainly think that the Executive Committee of the Pan-American Medical Congress should pass a resolution which would enable German physicians to visit the Congress, provided a participation on our part is at all desired.

I shall be exceedingly gratified if my suggestions should find

favor on the other side of the ocean; and if I should be thus enabled, dear sir and colleague, to personally enter into friendly relations with you in Washington.

With best wishes and the compliments of the season, I am,

Yours most respectfully,

DR. CZERNY,

Honorary Member of the American Surgical Association.

HEIDELBERG, December 28, 1892.

(REPLY.)

THE PAN-AMERICAN MEDICAL CONGRESS.

Office of the Secretary-General,
311 Elm Street.

CINCINNATI, February 14, 1893.

Professor V. Czerny, Heidelberg:

MY DEAR DOCTOR—My distinguished colleague, Dr. C. H. Mastin, has referred to me for official reply your open letter addressed to him and published in the *Deutsche Medicinische Wochenschrift* for January 12th of this year.

A careful reading of your valued communication leads me to the conclusion that you, in common with other distinguished German *savants*, hesitate in accepting an invitation to attend the Pan-American Medical Congress, (1) because the German profession is not officially invited by the Executive Committee to become a constituent part of the Congress; (2) because the German language is not one of the official languages of the Congress, and (3) because a general participation on the part of yourself and *confrères* might be construed into disloyalty to the International Medical Congress which is to meet in Rome in the same month.

In reply I beg to state that the occasion for holding a medical Congress in the United States in 1893, is the fact that a large number of physicians will be in this country in attendance upon the World's Columbian Exposition. This attendance will be largely, although not by any means exclusively, from the countries of the Western Hemisphere. It would have been very desirable, indeed, to have arranged an organization which would have embraced all the countries of the world. The medical profession of the United States, however, acknowledges allegiance to the World's International Congress which is to meet in Rome. To have attempted an organization in Germany, or any other European countries, in the

interest of the American meeting, would have been in violation of our loyalty to the International Congress, while an official invitation to the government and medical societies of Germany and other European countries to send delegates to the Washington meeting would have been almost equally inimical to the interests of the Rome Congress. It was, therefore, resolved that the organization should be limited to the American countries, and that while it was desirable to secure the attendance of our distinguished *confrères* from Europe as guests, invitations to that end should be strictly personal in character, and should be issued by the general officers and presidents of sections, at their discretion.

The languages chiefly spoken by the peoples of the various constituent countries of the Congress are Spanish, Portuguese, and English, and these were accordingly selected by the Committee as the official languages of the Congress. French, which is the language of important colonies and communities, was subsequently added, at the instance of our *confrères* in Brazil, who employ it largely in scientific communication, as, indeed, do a large proportion of the physicians of both the English and Spanish-speaking countries. Danish and Dutch are not included simply for the reason that it is extremely, indeed practically, impossible to deal with them satisfactorily in a literary way in this country. It was hoped that delegates from countries and colonies speaking other than Spanish, Portuguese, English, and French would furnish their remarks on papers in one of the official languages. This was so thoroughly understood by the Committee, and has become such a well-established usage at international congresses, that it was not deemed necessary to state it explicitly; but I shall communicate the suggestion which you kindly make to the Executive Committee, when, I have no doubt, it will be made definite in the By-laws.

As early as December, 1891, I opened correspondence by telegraph with the President of the eleventh International Congress, and subsequently with Professor Maragliano, of Genoa, the Secretary-General, asking that the date of the Rome meeting be arranged so as to permit us to send delegates from Washington. The date of the International Congress was accordingly changed from the 17th to the 24th of September, which will give us sixteen days in which to go from Washington to Rome. Arrangements were begun in February of last year for a special sailing of a steamer September 9th, direct to Italy, by way of the Azores and Gibraltar, to take those desiring to attend the Rome meeting, a special

reduced rate being accorded for the occasion. My present correspondence indicates that a large number will avail themselves of this privilege. It is highly gratifying to note that the expediency of this plan has occurred quite independently to one so conversant with affairs as yourself.

Permit me to say, in conclusion, that our European *confrères* who may honor the Pan-American Medical Congress with their presence will be accorded every linguistic privilege, that arrangements have already been made for their return to Italy in time for the International Congress, and that in the event of their coming they will be greeted with a most cordial American welcome.

Very sincerely yours,

CHARLES A. L. REED,

Approved: *Secretary-General P.-A. M. C.*

WILLIAM PEPPER, *President.*

CLAUDIUS H. MASTIN, *Member of the Board of Trustees.*

UNFORTUNATELY, the remarks of Dr. M. A. Crockett, in closing the discussion on his part on the group of papers read before the Medical Society of the County of Erie, were left out of their proper place. They are printed below, instead of on page 479, where they belong. Dr. Mann's remarks should precede Dr. Crockett's, otherwise the discussion is in its proper order.

Dr. CROCKETT in closing: Several of the speakers are apparently in favor of making cultures of the gonococcus. Their method is to use the wife as the culture medium; if she escapes the disease the husband was cured. This is not the plan I suggested in my paper. No one maintains that *every* case of gonorrhea results in a pus tube; as well say exposure to small-pox means to contract the disease. You *must* admit that gonorrhea *may* produce certain disastrous results. This is enough to make it imperative to assure ourselves as to the question of cure before marriage is allowed. A case is cured when no more gonococci can be found by means of culture tests. It is perfectly feasible for a pathologist to make this test, and certainly the question is serious enough to warrant a little trouble.

Dr. Frogie's methods, as quoted by Dr. Pryor, are tolerably reliable, but much less so than culture tests, and certainly quite as much trouble. I agree with Dr. Pryor that in certain cases we should find the gonococcus before stating the disease to be gonorrheal. On the other hand, there are certain clinical symptoms to gonorrhea, just as there are to phthisis, and we can be reasonably certain in many cases without looking for the bacteria to confirm us.

BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

EDITORS:

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

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THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

THE eighty-seventh annual meeting of this society, held at Albany, February 7, 8, and 9, 1893, under the presidency of Dr. Lewis S. Pilcher, of Brooklyn, will rank as one of the most interesting and remarkable meetings in its history. In the first place, considerable attention was attracted to this meeting, all over the country, on account of the action of the American Medical Association, at Detroit, at its meeting held in June, 1892. It will be remembered that a committee of five was appointed to treat with a like committee of the Medical Society of the State of New York, on the subject of a renewal of reciprocal relations between these two medical bodies.

Most unwisely some foolhardy enthusiast moved to invite the New York State Medical Association to appoint a committee to act with these two on the subject, which was carried. But how, by any process of ratiocination whatsoever, it could come about that the New York State Medical Association could have anything to do with the matter, is beyond the comprehension of the most acute observer. It was absolutely and morally certain when a committee from the New York State Medical Association was added that the Medical Society of the State of New York would decline to have anything to do with the affair in any shape or manner, and this was probably the reason why the association was added as a party to the proposed treaty.

The meeting just held has shown that the predictions of friends of both societies, that is, the Medical Society of the State of New York and the American Medical Association, were correct when they said that the Medical Society of the State of New York would not condescend to appoint a committee to treat with the other two associations on the subject.

The Medical Society of the State of New York, at its recent

meeting, further emphasized its opinion on the questions that have been the subject of controversy for the past ten years, by striking out from its by-laws all references to codes whatsoever; so now, instead of being a so-called new-code society, it is absolutely and unalterably a "no-code" society. This seems to us the most fitting answer that could be returned to the American Medical Association, for its outrageous treatment of the physicians from the State of New York who have seen fit for one reason and another to attend its meetings during the past ten years.

The fact is that the American Medical Association has been governed by a ring, for the past decade, that has known nothing except ethics gone mad in its management. It is to be hoped that the newer generation will take hold of affairs and rehabilitate the fossilized management of Messrs. Davis, Toner, and McGuire. The latter gentleman, who is now President of the American Medical Association, advocated in his annual address to the American Surgical Association, a few years ago, an abrogation of codes. To be consistent, he must do likewise in his address to the American Medical Association, in Milwaukee, next June. We shall see.

But we digress. It is to President Pilcher that the Medical Society of the State of New York tenders its most heartfelt thanks for the successful manner in which he conducted this whole subject, and for the able presentation of it in his inaugural address. It was so faithfully and thoroughly set forth in his masterful address as to leave in the minds of the society only one idea, namely, the propriety of wiping out all codes, and in future to stand on the broad foundation of gentlemanly conduct the one towards the other.

Thus the Medical Society of the State of New York at last comes to occupy the ground that was so ably advocated by Dr. D. B. St. John Roosa in 1882, when he proposed a substitute for the then pending new-code proposition, in the nature of a resolution, which, if adopted, would have at once made a no-code society of that body.

The scientific work of the society at this meeting was fully up to its highest standard, and reflects great credit on the management from the president down.

In selecting Dr. Herman Bendell, of Albany, for the succession, the society has honored one of its most faithful and devoted members, who has always worked hard for its best interests. We predict that President Bendell will preside over a meeting in 1894 not second to any that has heretofore been held.

TOPICS OF THE MONTH.

It is strange that a modern city should be compelled to tolerate a nuisance that is coming to be well nigh intolerable. In this latter part of the nineteenth century, which is fraught with a high order of civilization in everything, excepting certain bigotries which still cling around the church, it is a pity that the latter cannot give up some of its idols. We have no quarrel with sects or beliefs, for we prefer that every man and woman shall have the freest latitude in this regard, but we do think that it is high time that any church that proposes to ring its bells to the annoyance and discomfort of the patient people, should be brought to the bar of justice for its infraction of the commonest rules of propriety. Let anyone lie ill for a few weeks within the range of St. Michael's Church, and hear the intolerable ding of its bells at an early hour, when invalids need rest and sleep, and we think they will acknowledge the justice of every word we have said, and even that we have been too lenient in our charge.

We call upon the Health Commissioner to invoke the aid of the courts to suppress this nuisance, which has become a stench in the nostrils of decent people. It may be true that politicians are afraid to handle it, but we think the Health Commissioner has mettle enough in him to suppress anything which will come within the range of a sanitary nuisance.

Of what earthly good can it be to ring the church bells at five or six o'clock in the morning, and so on during all hours of the day, when everybody nowadays carries a watch, and every house is full of timepieces that indicate when services are held? We speak earnestly because we are the victims of this very nuisance. One would suppose that the good Bishop Ryan, if appealed to, would put an end to it, but we understand that he declines to do so. Therefore, we invoke the health authorities on the subject.

The annual banquet given by the Department of Health, at the Tifft House, on Friday evening, February 17, 1893, was a most successful gathering of convivial friends. The menu was everything that could be desired, the speeches were excellent, and the poetry was unique. These annual social meetings serve to bind together a class of officials who need recreation, and who work all the better for the health of the community because they work unitedly and agree socially.

The Columbia Daily Calendar has been received, and, as usual, fills an important place on the desk of every one fortunate enough to possess it. The day of the week, of the month, and of the year is given, and on each leaf is a short plea for outdoor exercise on a bicycle. The mechanism of this calendar is such as to make it one of the most useful that we have seen. It is issued by the Pope Manufacturing Co., of Boston, New York, and Chicago.

Clinical Report on Insanity is the title of a brochure published by the medical staff of the Maryland Hospital for the Insane. This is a reprint from the ninety-fifth annual report of the hospital, and is one of the most interesting publications that has been issued by such an institution within our knowledge. Its contents are as follows: (1) The Relation of Pelvic Disease to Psychical Disturbances in Women, by Geo. H. Rohé, M. D., Superintendent; (2) A Case of Trephining for Insanity, by J. Percy Wade, M. D., Assistant; (3) A Case Showing the Relation of Kidney Disease to Insanity, by Milton D. Norris, M. D., Clinical Assistant; (4) Acute Delirious Mania Probably Depending upon Septic Absorption, by Fred Caruthers, M. D., Clinical Assistant; (5) Results Obtained with Sulfonal and Hyoscine in the Treatment of the Insane, with Report of Cases, by John H. Scally, M. D., Clinical Assistant. Dr. Rohé's paper has already been published in the *American Journal of Obstetrics*, and has, no doubt, been widely read. We have already referred to this subject in a previous issue when noticing the report of the Eastern Michigan Asylum. The other papers also are of great interest, and we commend their careful reading to all interested on the subject of insanity or psychical disturbances of any form.

The Directors of the Carnegie Laboratory announce that they have arranged for short courses of biological examination with reference to the diagnosis of cholera. These courses are open to representatives of health boards, health officers, and to properly equipped medical men. In view of the possible advent of cholera at any time, and especially this year, this would seem to us a most valuable opportunity for health officers to obtain such technical instructions with reference to this subject as is here offered. The general scope of the courses is expected to fulfil the same purpose as the cholera courses given at the Hygienic Institute in Berlin, by Koch, in 1886 and 1887. Dr. Edward K. Dunham, who has

worked considerably in cholera in Germany, and recently in this country, is conducting them. The courses began about the 20th of January, 1893, and each course continues about two weeks. The fee to cover expenses is $25. All applications for admission to the courses should be made in advance to the Secretary of the Carnegie Laboratory, 28 East Twenty-sixth street, New York.

The American Text-Book of Surgery, edited by Professors Keen and White, of Philadelphia, which has only been issued a few months, is already a phenomenal success. It has been adopted as a text-book by forty-nine of our leading medical colleges and universities. Nearly 5,000 copies have been placed in physicians' libraries, and every indication points to a sale of at least as many copies more in the next six months. Dr. Nicholas Senn, of Chicago, is now preparing a Syllabus of Lectures on the Practice of Surgery, arranged in conformity with the American Text-Book of Surgery, which will be a valuable aid to all who have this great book.

The Government of Venezuela and the Pan-American Medical Congress: Senor P. Ezequiel Rojas, the Venezuelean Minister of Foreign Affairs, has forwarded, on behalf of his government, through the United States *Chargé d' Affaires* at Caracas, a formal acceptance of the invitation issued pursuant to the joint resolution of the United States Congress to the various governments of the Western Hemisphere to send official delegates to the Pan American Medical Congress. The selection of delegates has not yet been made, but the names will be forwarded at the earliest possible moment.

The International Medical Annual for 1893 is soon to be published by E. B. Treat, of Nos. 5 and 13 Cooper Union, New York. One of the many interesting features of this valuable work is the series of articles on special subjects connected with medicine and surgery. In looking over the Annual for 1889 we were surprised to find such exhaustive articles on Massage and Electro-Therapeutics, comprehensive enough for any practitioner or specialist. The 1893 Annual will contain several very important articles on special subjects.

This enterprising firm is now distributing to the profession in Buffalo the second edition of Illustrated Medicine and Surgery, by

Fox and Sturgis, a work of 203 pages, with half as many beautiful engravings on clinical cases by some of the foremost clinicians in America.

The firm of E. Leitz, of Wetzlar, Germany, manufacturers of the famous microscopes bearing this name, has established a branch office at New York, No. 30 E. 23d street.

St. Clement's Hospital, of Philadelphia, is to be reorganized as a hospital for epileptics, and placed under the charge of Dr. Charles K. Mills and Dr. Wharton Sinkler. It has been estimated that in the United States there are 120,000 epileptics, 1,000 to 2,000 alone in Philadelphia. We hope to see the time when not only every State but every large city will have its epileptic colony or epileptic hospital.

Personal.

The seventieth birthday of Louis Pasteur, of Paris, was recently the occasion of a national—better international—demonstration to this learned *savant*.

Professor Verneuil, one of the most prominent surgeons of France, and Professor of Surgery at the University of Paris, has resigned his professorship on account of ill health.

Dr. S. A. Dunham was elected Secretary of the Section on Anatomy, Physiology, and Pathology of the Buffalo Academy of Medicine, in place of Dr. Snow, resigned.

Obituary.

Dr. George Jackson Fisher, of Sing Sing, one of the most prominent physicians of the State, died at his residence February 4, 1893, from blood-poisoning contracted while performing an operation on January 13, 1893. Dr. Fisher was one of the most accomplished men of his time, and had collected a large library filled with quaint and curious literature, which was often sought by literary men. He was a member of various scientific bodies, and had been President of the Medical Society of the State of New York. He was altogether one of the most gifted and charming conversationalists of the day. His demise will be mourned by a wide circle of professional and social friends throughout the country.

Society Meetings.

The next meeting of the Buffalo Microscopical Club will be held Monday evening, March 13, 1893. The evening will be devoted to a manufacturers' exhibition of microscopes and accessories. The following firms have accepted and will take part: Spencer & Smith, Buffalo; Queen & Co., Philadelphia; Joseph Zentmayer, Philadelphia; Bausch & Lomb, Rochester; Gundlach Optical Co., Rochester; E. H. Griffith, Rochester. A reduction from catalogue prices will be granted members of the club and physicians on all orders placed with these firms during the evening.

The next stated meeting of the Buffalo Academy of Medicine will be held Tuesday evening, March 21, 1893. The Section on Anatomy, Physiology, and Pathology will have charge of the programme.

Dr. George M. Sternberg, Deputy Surgeon-General U. S. Army, Executive President of the Pan-American Medical Congress, Section of Military Medicine and Surgery, announces that the following gentlemen have been duly appointed members of the Advisory Council of this section: Colonel Louis Read, M. D., Surgeon-General N. G., Pa.; Newton L. Bates, M. D., Medical Director U. S. N.; J. R. Tryon, M. D., Medical Inspector, U. S. N.; Lieut.-Colonel Eustathius Chancellor, M. D., Medical Director, N. G., Mo.; Brevet Lieut.-Col. A. A. Woodhull, M. D., Surgeon, U .S. A.; Maj. Joseph H. Corson, M. D., Surgeon, U. S. A.; Maj. George Henderson, M. D., Medical Director, N. G., D.C.; C. N. Hoagland, M. D., ex-Surgeon, Ohio Vols.; Bedford Brown, M. D., ex-Surgeon, C. S. A.; H. C. Goodman, M. D., ex-Surgeon, U. S. Vols.; Melancthon Storrs, M. D., ex-Surgeon, Conn. Vols.; O. D. Ball, M. D., Pension ex-Surgeon, Albany, N. Y.; Capt. H. O. Perley, M. D., Assistant Surgeon, U. S. A.

Dr. Henry S. Upson, of Cleveland, O., delivered an interesting lecture before the Buffalo Microscopical Club, at its last meeting, on A Few Remarks on Nerve Cells and Their Mode of Action.

The Section on Surgery of the Buffalo Academy of Medicine has elected the following officers for the ensuing year: President, H. E. Hayd, M. D.; Vice-President, M. Hartwig, M. D.; Secretary and Treasurer, C. A. Ring, M. D.

Among the Buffalo physicians who attended the recent meeting of the New York State Medical Society, held at Albany, were Drs. Daggett, Hopkins, Mynter, Hayd, Park, Stockton, Bergtold, Thornton, Howe, and Krauss. Dr. Lapp, of Clarence, was also present. Papers were read by Dr. Wm. C. Krauss on Reflex Disturbances in the Causation of Epilepsy; by Dr. Roswell Park on The Etiology of Carcinoma, and by Dr. Chas. G. Stockton on The Disturbances of the Motor Function of the Stomach—their Diagnosis, Symptoms, and Treatment. Dr. H. Mynter participated in the discussion on Tuberculous Disease of the Bones and Joints.

The next meeting of the Section on Surgery of the Buffalo Academy of Medicine will be held Tuesday evening, March 7, 1893. The programme for the evening will be: The Causes and Theories of Syphilis, by Ernest Wende, M. D.; Syphilis and Marriage, by C. C. Frederick, M. D.; The Treatment of Syphilis, by William H. Heath, M. D.

The next meeting of the Section on Medicine of the Buffalo Academy of Medicine will be held at the Academy rooms, Tuesday evening, March 14, 1893. The programme will be devoted to reports of clinical cases by Dr. E. A. Smith and others.

Book Reviews.

A Treatise on Nervous and Mental Diseases, for Students and Practitioners of Medicine. By Landon Carter Gray, M. D., Professor of Nervous and Mental Diseases, in the New York Polyclinic, etc., with 168 illustrations, 8vo, pp. 686, cloth. Philadelphia: Lea Brothers & Co. 1893.

This volume is the result of many years' experience in the neurological field, and is written with the firm conviction that a book was needed which considered nervous and mental diseases chiefly from the therapeutic standpoint. The physician, well read in this subject, will be surprised on reading this work that many clinical points in the several diseases have been omitted. This has not been carelessness, but intentional. The author says: "A teacher must know what to omit, as the force and permanence of

his teachings will depend upon his strict avoidance of the non-essentials." In the discussion of what to omit, men will naturally differ, for therein is the element of personal equation.

We think that the excellent chapter on Epilepsy would have been more valuable had the author told the reader just what was meant by an aura. All that he says on the subject is: "There may be other sensations called auræ."

In the discussion of migraine, we hoped that the author would discuss ocular defects as an etiological factor, and the correction of these defects as a therapeutic measure. But he does not even mention the fact that it is possible for a case of migraine to be aggravated by any ocular defect. The explanation of this is found in his belief that all cases are hereditary. It also explains the statement he makes: "I have never known one being cured."

In the article on Chorea we should have expected to see some mention of post-choreic paralysis, and also of the limp or paralytic chorea. But these are simply the omissions which are dictated by selection of the non-essentials, and we simply record our regret that what we have held to be so highly important as the aura of epilepsy, ocular deficiencies in migraine, and the paralytic phenomena in chorea, should not find place in this valuable volume.

The arrangement has been most admirable, the style very clear. The reader will never be in doubt as to what is meant when he reads a chapter in Gray.

The articles on the Spinal Cord are very clear, and clinical types are ably presented. The various methods of treatment are given their full value, even though the author has not full faith, as, for instance, his report of suspension in locomotor ataxia.

We were glad to notice the prominent place he accords hypnotism in this book, for we believe with the author, that in it we have an agent of value.

In his views of treatment and prognosis the author is apt to take more hopeful views than we usually see in works on nervous disease. This is most gratifying, as it will tend to arrest the tendency, in so many men, of thinking their duty accomplished when they have made a diagnosis.

There is a marked exception to this in his view of Raynaud's disease. He here is flatly opposed to the opinion of Dana, in his text-book of nervous disease, who says "the cases usually get well." He also differs from Osler, who, in his masterly work, says of this disease: "Attacks of this sort may recur for years."

"Apart from this unpleasant symptom the general health may be very good."

Gray takes the following gloomy view: "The prognosis of Raynaud's disease and erythromelalgia are unmitigatedly bad." "The treatment of Raynaud's disease must be amputation as speedily as possible, before the strength of the patient is exhausted and before sepsis sets in."

We think that, as the author's views on this subject differ so radically from those of all other writers, that in a second edition some hint should be given that in this view he stands alone.

Part III. is devoted to a consideration of mental diseases. This consists of less than 100 pages, and, hence, cannot be considered in the light of a treatise on insanity. On the contrary, the various forms are merely sketched. It bears the evidence of being hurriedly completed, or else of the author's feeling the limitation of space.

He mentions a will case in which the testator had illusions of smell, and yet protests against the man's testamentary capacity, without giving any other reason for it than hallucination of smell. The reader should not be left to infer that such a symptom, unsupported by other evidences of insanity, would or should affect the power of making a will.

The chapter on Melancholia is very complete, and conveys a remarkably good idea of the condition in a short space. We are in doubt, however, as to other observers seeing so large a proportion of cases with post-cervical ache.

The chapter on Mania is noticeably incomplete, as also are the chapters on Hebephrenia and Furor Transitorius. We think that a clearer idea of the various forms would be given were there some illustrative cases. The author is decided in his opposition to asylum treatment for the curable insane. In order to follow this theory we must become far better prognosticians than we are at present.

The value of this book is greatly increased by the beauty and original illustrations. The bibliography is of great aid in reference work, and a complete glossary will do much to aid the student in his understanding of neurological terms.

While we have pointed out wherein we differ from the author in our estimate of the non-essentials, as a whole we cannot but believe that it will prove a most useful addition to our literature.

J. W. P.

ANATOMY. A Manual for Students and Practitioners. By FRED. J. BROCKWAY, M. D., Assistant Demonstrator of Anatomy, College of Physicians and Surgeons, New York, and A. O'Malley, M. D., Instructor in Surgery, New York Polyclinic. Series edited by Bern B. Gallaudet, M. D., Demonstrator of Anatomy, College of Physicians and Surgeons, New York; Visiting Surgeon, Bellevue Hospital, New York. Philadelphia : Lea Brothers & Co.

The books, as a class, to which this one belongs are multiplying too rapidly, and the only reason for their existence seems to be to spread the author's name and fame rather than to really supply a deficiency. In justice, however, to the author of this quiz-book, it can be said that some useful additions have been made, such, for example, as the various tables of homologies, the excellent and detailed descriptions of the action of muscles, and the variations from the normal type that may occur, and the useful glossary at the termination of the book. The adoption of Henle's classification seems to us judicious.

While the book belongs to a class with which we are not in full sympathy, it is only fair to say that this one tends to elevate its class. The book is convenient in size, and is up to the same high standard that the publishers always give their readers. J. P.

A HAND-BOOK OF PATHOLOGICAL ANATOMY, AND HISTOLOGY, with an Introductory Section on Post-Mortem Examinations, and the Methods of Preserving and Examining Diseased Tissues. By FRANCIS DELAFIELD, M. D., LL. D., Professor of the Practice of Medicine, College of Physicians and Surgeons, Columbia College, New York, and T. Mitchell Prudden, M. D., Professor of Pathology and Director of the Laboratories of Histology, Pathology, and Bacteriology, College of Physicians and Surgeons, New York. Fourth edition, illustrated by 300 wood engravings, printed in black and colors. Pp. 715. New York : William Wood & Company. 1892.

The fourth edition of this excellent work needs but little introduction to the profession, inasmuch as the former editions have enjoyed a wide circle of professional readers. This edition is some 100 pages larger than the third edition, many chapters having been rewritten and enlarged upon. Many drawings and photographs have been added, some showing the presence of microörganisms in the diseased tissues, adding greatly to the value and interest of the book.

The third edition was reviewed at some length in the March (1890) number of the JOURNAL. The typographical work of this is even better than in the former edition, thanks to the enterprise of its publishers. W. C. K.

What to Do in Case of Accident. By Merrill B. Rickets, Ph. B., M. D., Member of the Ninth International Medical Congress (1887); American Medical Association; Ohio State Medical Society; Fellow of the New York State Medical Association, Mississippi Valley Medical Association, National Association of Railway Surgeons, Cincinnati Academy of Medicine, Cincinnati Medical Society, Southwestern Ohio Medical Society, Cincinnati Natural History Society; Visiting Dermatologist, German Protestant Hospital; Physician for Skin Diseases and Plastic Surgery to Christ Hospital, and Consulting Physician for Skin Diseases to Ohio State Hospital and Woman's Medical College; Chief Surgeon for C. P. & V. R. R. and A. E. & L. Ins. Co. Cincinnati: Printed by James Barcley, 124 Canal street. 1892.

In this little volume of sixty-one pages Dr. Rickets has concentrated an immense amount of useful information on the subject on which it treats. There is hardly a single form of danger from sudden attack of illness, whether from poison, traumatism, or zymotic disease, that is not met by sensible, scientific, and simple remedial agents, which may be applied or administered by any cool and intelligent person till the physician, who, of course, should be immediately summoned, can arrive.

We all know that there are times when even a little knowledge and common sense may save life if immediate resort to the proper means be taken, such as, for instance, in cases of drowning, bleeding, croup, poisoning, and a host of other conditions where prompt aid is necessary. Careful directions, with very easily understood pictorial illustrations, are given in cases of accidents requiring surgical treatment, showing how and where to apply bandages and tourniquets. Diet and food receive proper attention, and the list of antidotes in cases of poisoning ought to be studied and committed to memory by every one having a family in charge. Much useful information not directly connected with the general subject is furnished. The book may, indeed, be called a *multum in parvo* of special benefit to families in places remote from medical aid.

Accidents and Emergencies. A Manual of the Treatment of Surgical and Medical Emergencies in the Absence of a Physician. By Charles W. Dulles, M. D., Fellow of the College of Physicians, Philadelphia, and of the Academy of Surgery; Physician to the Rush Hospital; formerly Surgeon to the Out-door Department of the Hospital of the University of Pennsylvania, and of the Presbyterian Hospital, in Philadelphia, and Assistant Surgeon, Second Regiment, N. G., Pa. Fourth edition, thoroughly revised and enlarged, with new illustrations. Philadelphia: P. Blakiston, Son & Co., No. 1012 Walnut street. 1892.

That this little book has reached a fourth edition speaks for itself. The author sounds the key-note when, in his preliminary remarks, he warns the laity not to assume too much medical knowl-

edge, and thus be led into doing more than is judicious for the patient. He says: "The true principle is, when urgency is pressing, to do what is known to be helpful; and when one is not sure, to do nothing." In this particular the book throughout is quite consistent, for scarcely anywhere is advice given which may not be rightly carried out by the intelligent bystander. The author considers all the usual emergencies, such as obstructed respiration, foreign bodies, unconsciousness, fits, burns, frost-bites, sprains, luxations, fractures, wounds, poisons, and the common diseases with urgent symptoms. There are throughout the book little "kinks" which one does not usually meet with in brochures of this kind, such, for instance, as (page eighteen) blowing in the ear to dislodge foreign bodies in the throat; (page twenty-three) the use of olive or castor oil in retained foreign bodies in the eye; (page thirty) in hysteria the eye-balls are persistently rolled up, and so on. The author also has opinions of his own, as evidenced by his treatment of frost-bite (page forty-seven), and general freezing of the body. The immediate use of heat recommended corresponds exactly with our own experience, and gives one hope that the older method will be abandoned for the new.

The book is a first-class one to have in a home, and every intelligent reader must be benefited by the lessons taught. The publishers have made this little volume most attractive, the type and general arrangement being of superior order. J. P.

A Hand-Book of Hygiene and Sanitary Science. By George Wilson, M. A., M. D., F. R. S., Edin., D. P. H., Camb.; Fellow of the Chemical Society; Fellow of the Sanitary Institution of Great Britain; Medical Officer of Health for the Mid-Warwickshire Sanitary District; formerly Medical Officer, H. M. female prison, Woking, and H. M. convict prison, Portsmouth. Seventh edition. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1892. Price, $3.25.

This author has long been before the public as an accepted teacher on the subjects treated upon in this book, hence his seventh edition needs only to be noticed to insure its purchase. It has been out of print for more than a year, but has now come to us with a revision and completeness that brings it up to the present date in the important subjects of which it treats. Much of the work has been rewritten and the book has been enlarged by more than 200 pages. Besides, a number of new wood-cuts have been added, which serve to further perfect the work. There is such a marked tendency in the present age among all physicians to study, under

competent masters, the science of prevention as well as cure, that a vast increase in the sale of sanitary and hygienic literature has taken place within a short time. Many of the treatises on these subjects are large and exhaustive, but we know of none more practical for the every-day physician than Wilson's Hand-Book. We hope it will be purchased and studied, especially by health officers of towns throughout the State. These duties are frequently performed in a perfunctory manner by busy doctors, but they should change front and make their services more valuable to the people. Let them purchase this book, and be stimulated thereby to better work.

ADDRESSES AND ESSAYS. By G. FRANK LYDSTON, M. D., Professor of the Surgical Diseases of the Genito-Urinary Organs and Syphilology, in the Chicago College of Physicians and Surgeons; Surgeon-in-Chief of the Genito-Urinary and Venereal Department of the West Side Dispensary, Chicago; Fellow of the Chicago Academy of Medicine, and of the Southern Surgical and Gynecological Association; Lecturer on Criminal Anthropology in the Union Law School; Honorary Member of the Texas State Medical Association. Second edition, revised and enlarged. Renz & Henry, Louisville, Ky. 1892.

Under this title this interesting and accomplished author has grouped a number of chapters, for the most part relating to Diseases of the Genito-Urinary System in the Male and Female. The fact that a second edition has so soon been called for, speaks in decided language as to the value of this book. The profession is already familiar with these essays and lectures, hence we need only call attention to the fact that the second edition has been published and is now offered to the profession. We presume it will be promptly exhausted, hence, those who desire to obtain the book must make early application to the trade therefor.

KIRKE'S HAND-BOOK OF PHYSIOLOGY. By W. MORRANT BAKER, F. R. C. S., Late Surgeon to, and Lecturer on, Physiology at St. Bartholomew's Hospital, etc., and Vincent Dormer Harris, M. D., London, Examiner of Physiology at the Conjoint Board of the Royal College of Physicians and Surgeons, and in the University of Durham; Demonstrator of Physiology at St. Bartholomew's Hospital; Physician to the Victoria Park Hospital for the Diseases of the Chest. Thirteenth edition. With upwards of 500 illustrations, including some colored plates. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1892.

This standard work now appears in its thirteenth edition, and still retains its hold upon the medical student as one of the best of its kind. Since the last edition, the book has undergone a thorough

revision, and its scope has been somewhat enlarged, but its general value to the student has not been impaired, but rather increased. The object of this book is to study physiology only as an introduction to medicine, as announced in the preface, and we know of no work that more nearly fulfils its mission in this respect. It is beautifully illustrated and printed on handsome paper, and though the work contains 884 pages it is not cumbersome, but can easily be carried back and forth between the laboratory and study.

BOOKS RECEIVED.

Syphilis and the Nervous System, being a revised reprint of the Lettsomian Lectures for 1890, delivered before the Medical Society of London. By W. R. Gowers, M. D., F. R. C. P., F. R. S., Consulting Physician to University College Hospital, Physician to the National Hospital for the paralyzed, and epileptic, etc. Price, $1.00. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1892.

Fermentation, Infection, and Immunity. A new theory of these processes, which unifies their primary causation, and places the explanation of their phenomena in chemistry, biology, and the dynemics of molecular physics. By J. W. McLaughlin, M. D., Austin, Texas. Copyright, 1892. Austin, Texas: Eugene Von Boeckmann, printer and bookbinder. 1892.

Hand-book of Insanity for Practitioners and Students. By Dr. Theodore Kirchhoff, Physician to the Schleswig Insane Asylum, and Privatdocent at the University of Kiel. Illustrated with eleven plates. Octavo volume, pp. 362. New York: William Wood & Co. 1893.

Hygiene and Public Health. By Louis C. Parkes, M. D., D. P. H., London University. Fellow of the Sanitary Institute, and Member of the Board of Examiners; Lecturer on Public Health at St. George's Hospital Medical School; Medical Officer of Health and Public Analysis for the parish of Chelsea. Third edition, with illustrations, Price, $2.75. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1892.

The Chronic Disorders of the Digestive Tube. By W. W. Van Valzah, A. M., M. D., formerly Demonstrator of Clinical Medicine, Jefferson Medical College. Octavo volume, pp. iv.—151. New York: J. H. Vail & Co. 1893.

Lectures on Mental Diseases, designed especially for Medical Students and General Practitioners. By Henry Putnam Stearns, A. M., M. D., Physician Superintendent of the Hartford Retreat, Lecturer on Mental Diseases in Yale University; Member of the American Medico-Psychological Association, Member of the New England Psychological Society, Honorary Member of the British Psychological Association, Honorary Member of the Boston Medico-Psychological Society, Member of the American Medical Association, etc., etc. With illustrations. Small octavo; pp. xviii.—636. Price, $3.00. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1893.

Hand-book of Materia Medica, Pharmacy, and Therapeutics, including the Physiological Action of Drugs, the special Therapeutics of Disease, Official and Practical Pharmacy, and Minute Direction for Prescription Writing. By Samuel O. L. Potter, A. M., M. D., M. R. C. P., Lond., Professor of the Theory and Practice of Medicine in the Cooper Medical College, of San Francisco; Visiting Physician to St. Luke's Hospital; Author of Quiz Compends of Anatomy and Materia Medica, An Index of Comparative Therapeutics, and A Study of Speech and Its Defects. Formerly A. A. Surgeon, U. S. Army, and Brigade-Surgeon, N. G. of California. Fourth edition, revised. Octavo volume, pp. xii. —781. Price, $4.00. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1893.

A System of Genito-Urinary Diseases, Syphilology and Dermatology, by various authors. Edited by Prince A. Morrow, A. M., M. D., Clinical Professor of Genito-Urinary Diseases; formerly Lecturer on Dermatology in the University of the City of New York; Surgeon to Charity Hospital, etc. With illustrations. In three large 12mo volumes. Volume I., Genito-Urinary Diseases. Sold only by subscription.

Drifting. By Vigilans. Denver: Printed and for sale by the Chain & Hardy Co. 1892. Price, 50c. Octavo, pp. 313.

Miscellany.

WORLD'S COLUMBIAN EXPOSITION.

The World's Congress Auxiliary.—Department of Moral and Social Reform Congresses.—The International Congress of Charities, Correction, and Philanthropy.

The Congress will meet in the City of Chicago on Monday morning, June 12, 1893, at ten o'clock, in a hall to be hereafter announced.

SECTIONS OF THE CONGRESS.

(1) The Public Treatment of Pauperism; (2) The Care of Neglected, Abandoned, and Dependent Children; (3) The Hospital Care of the Sick, the Training of Nurses, Dispensary Work, and First Aid to the Injured; (4) The Commitment, Detention, Care, and Treatment of the Insane; (5) The Prevention and Repression of Crime, and the Punishment and Reformation of Criminals; (6) The Organization and Affiliation of Charities in Countries, States, Cities, Towns, and Villages, and Preventive Work Among the Poor; (7) The Introduction of Sociology as a Special Topic of Investigation and Instruction in Institutions of Learning.

The Committee of Organization will add sections covering

other fields of philanthropic work if there should seem to be a sufficiently general demand for them.

FREDERICK H. WINES,
JOHN G. SHORTALL,
MRS. J. M. FLOWER,
Committee of Organization.
NATHANIEL S. ROSENAU,
Secretary to the Committee.

OFFICERS OF SECTIONS.

SECTION 1.—The Public Treatment of Pauperism; Chairman, Ansley Wilcox, of New York, Chairman Executive Committee, Charity Organization Society of Buffalo; Secretary, John H. Finley, of Illinois, President of Knox College, Galesburg.

SECTION 2.—The Care of Neglected, Abandoned, and Dependent Children; Chairman, Mrs. Anna Garlin Spencer, of Rhode Island, Providence; Secretary, Charles L. Birtwell, of Massachusetts, Secretary Children's Aid Society, Boston.

SECTION 3.—The Hospital Care of the Sick, the Training of Nurses, Dispensary Work, and First Aid to the Injured; Chairman, Dr. John S. Billings, Surgeon U. S. A., Washington, D. C.; Secretary, Dr. Henry M. Hurd, of Maryland, Superintendent Johns Hopkins Hospital, Baltimore. Sub-section on the Training of Nurses; Chairman, Miss Isabel A. Hampton, Superintendent Training School for Nurses, Johns Hopkins Hospital, Baltimore.

SECTION 4.—The Commitment, Detention, Care, and Treatment of the Insane; Chairman, Dr. G. Alder Blumer, of New York, Superintendent State Hospital for the Insane, Utica; Secretary, Dr. A. B. Richardson, of Ohio, Superintendent Asylum for the Insane, Columbus.

SECTION 5.—The Prevention and Repression of Crime, and the Punishment and Reformation of Criminals; Chairman, Charlton T. Lewis, of New York, President State Prison Association, New York City; Secretary, John L. Milligan, of Pennsylvania, Secretary National Prison Association, Allegheny.

SECTION 6.—The Organization and Affiliation of Charities in Countries, States, Cities, Towns and Villages, and Preventive Work Among the Poor; Chairman, Daniel C. Gilman, of Maryland, President Johns Hopkins University, Baltimore; Secretary, ———

SECTION 7.—The Introduction of Sociology as a Special Topic of Investigation and Instruction in Institutions of Learning; Chairman, E. Benjamin Andrews, of Rhode Island, President Brown

University, Providence; Secretary, Amos G. Warner, of California, Professor of Economics, Leland Stanford, Jr., University; present address, Washington, D. C.

PROGRAMME OF SESSIONS AND SUBJECTS.

1. The National Conference of Charities and Correction will hold its twentieth annual meeting from June 8th to 11th inclusive.

2. The National Prison Association will also hold its annual meeting during the week preceding the International Congress.

3. The International Congress of Charities, Correction and Philanthropy will hold its sessions from June 12th to 18th inclusive.

First Day, Monday, June 12, 1893.—10.00 to 11.15 A. M., Opening Exercises; 11.15 A. M. to 12.00 M., Oration (subject to be announced); 12.00 M. to 2.00 P. M., Luncheon and Conversazione; 2.00 to 4.00 P. M., Opening Meetings of the Sections; 8.00 P. M., General Session, Subject, The Public Treatment of Pauperism.

Second Day, Tuesday, June 13, 1893.—10.00 to 10.30 A. M., Business Session; 10.30 A. M. to 12.30 P. M., Meetings of the Sections; 12.30 P. M., Visit to County and Presbyterian Hospitals; 8.00 P. M., General Session, Subject, The Organization and Affiliation of Charities in Countries, States, Cities, Towns, and Villages, and Preventive Work Among the Poor.

Third Day, Wednesday, June 14, 1893.—10.00 A. M. to 12.00 M., General Session, Subject, The Hospital Care of the Sick, the Training of Nurses, Dispensary Work, and First Aid to the Injured; 2.00 to 4.00 P. M., Meetings of the Sections; 8.00 P. M., General Session, Subject, The Care of Neglected, Abandoned, and Dependent Children.

Fourth Day, Thursday, June 15, 1893.—10.00 to 10.30 A. M., Business Session; 10.30 A. M. to 12.30 P. M., Meetings of the Sections; 1.00 P. M., Visits to Charitable and Correctional Institutions of Chicago and Vicinity; 8.00 P. M., General Session.

Fifth Day, Friday, June 16, 1893.—10.00 A. M. to 12.00 M., General Session, Subject, The Introduction of Sociology as a Special Topic of Investigation and Instruction in Institutions of Learning; 12.00 M. to 12.30 P. M., Descriptive Paper on the Bureau of Charities and Correction of the World's Columbian Exposition; 8.00 P. M., General Session, Subject, The Prevention and Repression of Crime and the Punishment and Reformation of Criminals.

Sixth Day, Saturday, June 17, 1893.—10.00 to 10.30 A. M.,

Business Session; 10.30 A. M. to 1.30 P. M., General Session, Subject, the Commitment, Detention, Care, and Treatment of the Insane; 3.00 to 4.00 P. M., Closing Meetings of the Sections; 8.00 P. M., General Session, Subject, The Apprehension and Detention of Prisoners, and the Bertillon System of Registering and Identifying Criminals.

SEVENTH DAY, Sunday, June 18, 1893.—Morning, Religious Exercises with Sermon Germane to the Work of the Congress; Evening at 8.00 P. M., General Session, Essay, The Relation of the Kindergarten to Pauperism and Crime; Address, Manual Training in its Effects on Character and the Reduction of Pauperism; 9.10 P. M., Closing Exercises.

Address communications to Nathaniel S. Rosenau, Secretary, World's Congress Headquarters, Chicago, Ill., U. S. A.

SECTION THREE ON THE HOSPITAL CARE OF THE SICK, THE TRAINING OF NURSES, DISPENSARY WORK, AND FIRST AID TO THE INJURED.

One of the series of International Congresses to be held in Chicago in 1893 is to be devoted to the subjects of Charities, Correction and Philanthropy, and the third section of this is to consider all matters relating to the Hospital Care of the Sick, the Training of Nurses, Dispensary Work, and First Aid to the Injured. The Committee of Organization of the Congress has appointed Dr. John S. Billings, Surgeon U. S. Army, as Chairman of this Section, and Dr. Henry M. Hurd, Superintendent of the Johns Hopkins Hospital, in Baltimore, as its Secretary, and has authorized and requested them to complete its organization, to extend invitations, and to prepare a programme for its work. Miss Isabel Hampton, Superintendent of the Training School for Nurses of the Johns Hopkins Hospital, has been appointed Chairman of that part of the work of the section which relates to the training of nurses.

This section will hold five sectional meetings of about two hours each, commencing June 12, 1893, and will also have charge of one of the general sessions of the Congress, viz., that held on the morning of June 14th.

It is desired that this shall be a truly international gathering for conference on the subjects allotted to this section, and all who are interested in hospitals, in training of nurses, in dispensaries, or in first aid to the injured, are cordially invited to be present, to contribute papers, and to take part in the discussions.

The papers and proceedings will probably be printed as a sepa-

rate volume, and it is hoped that this will represent the best methods and the best work in each of these departments in all parts of the world.

The following are suggested as subjects for special consideration in papers to be prepared: (1.) Hospital Organization—Governing Bodies—Relations of the Medical Staff and of Nurses' Training Schools. (2.) Hospital Finances—Means of Support—Mode of Keeping Accounts—Cost. (3.) Plan and Construction of recently built General Hospitals, embodying the latest improvements. (4.) Relations of Hospitals to Increase of Knowledge, to Medical Education, and to the Medical Profession. Hospital Records, Statistics, and Reports. (5.) Pay Patients in Hospitals. (6.) Isolating Wards and Hospitals for Contagious Diseases. (7.) Hospital Diets, Dietaries, Kitchens, etc. (8.) Hospital Amphitheatres and Operating Rooms. (9.) Hospital Laundries and Disinfecting Establishments. (10.) Army and Navy Hospitals —Emergency Hospitals in Time of Epidemics —Temporary and Movable Hospitals. (11.) Small and Special Hospitals, Cottage Hospitals, School Hospitals, Private Hospitals, Sanatoriums, etc. Convalescent Hospitals, and what to do with Incurables. (12.) History and Present Condition of Hospitals in the Large Cities. (13.) Training Schools for Nurses—see special circular. (14.) Dispensaries—Relations to the Public and to the Medical Profession. Dispensary Records. (15.) First Aid to the Injured. Associations for best means of popular instruction in, and its place in, General Education.

Persons desiring to present papers, or to share in the discussions of this section, are requested to communicate with the Secretary at once. The period of time allotted for the preparation of the programme is necessarily brief, and it is essential that all who are willing to assist in this work should act promptly.

JOHN S. BILLINGS, M. D., *Chairman.*
HENRY M. HURD, M. D., *Secretary.*

Address all communications to Dr. Henry M. Hurd, the Johns Hopkins Hospital, Baltimore, Md.

NOTICE TO CONTRIBUTORS.—We are glad to receive contributions from every one who knows anything of interest to the profession. Articles designed for publication in the JOURNAL should be handed in before the first day of the month. The Editors are not responsible for the views or opinions of contributors. All communications should be addressed to the Managing Editor, 284 FRANKLIN ST., BUFFALO, N. Y.

MEDICAL DEPARTMENT—UNIVERSITY OF BUFFALO.

Buffalo Medical and Surgical Journal

Vol. XXXII. APRIL, 1893. No. 9.

UNIVERSITY OF BUFFALO.

DEDICATION AND OPENING OF THE NEW BUILDING FOR THE MEDICAL DEPARTMENT, MONDAY, MARCH 7, 1893.

Introductory remarks by Hon. James O. Putnam, vice-chancellor.

Ladies and Gentlemen:

The keynote of this occasion is congratulation. While congratulations are familiar to us, on the onward march of our city to wealth and greatness, it is long since the University of Buffalo, until now, has been made happy by any outward sign of material progress.

I well remember the time when, in 1846, I had the honor to be associated with several gentlemen to organize the University of Buffalo, that a medical department might take proper form under its charter. Then followed the erection of the building at the corner of Main and Virginia streets. Though not, perhaps, a thing of beauty, it served well its purpose until the needs of the college had outgrown its capacity and appointments. What should be done? Should the college creep along in the old ways far in the rear of the development of the city, or should it keep pace with the time, meet the necessities of its position, and seek a new and adequate home worthy of itself and worthy of Buffalo? There could be but one answer. The council of the university trusted the intelligent appreciation of our public on whose sympathy and aid it felt it had a right to rely. The result is before us: this classic edifice, ample in dimension, beautiful for situation, tasteful and rich in architecture, reflecting the highest credit on the architect, Mr. George Cary, and surpassing in its adaptation to its uses every other medical college of the country. Am I not right in saying congratulations are in order? To the university on this splendid result, to Buffalo on this new proof that, amid the marts of trade and commerce, science may have a seat, and go hand in hand with

those imperial factors? Let us not undervalue the relation of a well-equipped medical college to the public. Science has no field of operations so closely related to human well-being as the do main of the medical profession.

I know her triumphs in other realms are the wonders of our time. She has put a girdle round the globe for the instantaneous transmission of thought. She has harnessed the "sightless couriers" of the air for man's use, and in manifold ways has multiplied a thousandfold the possibilities of human achievement. But these inventions pale in their importance as social factors before the triumphs of science in medicine and surgery, by which not only has the average of human life been increased, but the ills which flesh is heir to, have been so controlled as to vastly add to the sum of human happiness. Plagues have been stayed which once desolated nations. The causes of disease and their remedies, which for 6,000 years baffled the scrutiny of the wisest, have been discovered. Even the carnage of the battle-field has lost some of its horrors. Contrasting the hospital service of the later with the earlier wars of the century, we pay our grateful homage to the science of surgery.

The medical college is the training school which is making our life more worth living, and in country, and in city, in our private homes, and in local publics, revealing to us the laws of health which the public authorities must enforce.

These considerations have induced the liberal endowment of medical colleges by individual wealth in some of our sister cities. Not to speak of other instances, one woman in Baltimore has recently given $350,000 to build and equip the Woman's Medical College of Johns Hopkins University.

I will add that a committee for that university recently visited this building and secured copies of its plans for their own guidance. Like our library building it is already a celebrity. While Buffalo rejoices in our material enterprises, she will generously support those institutions which save her from the mean fame that follows neglect of the fair humanities.

I now declare this building opened for the uses for which it was erected.

You are awaiting the address of the evening, by one to whose energy, zeal, and courage is mainly due the success of this enterprise. Professor Doctor Cary needs no formal introduction. I have great pleasure in giving way to him.

THE HISTORY AND PRESENT STANDING OF THE UNIVERSITY OF BUFFALO.

By CHARLES CARY, M. D., Buffalo, N. Y.

Mr. Vice-Chancellor, Ladies and Gentlemen :

I congratulate the University and the good people of Buffalo, and all friends of liberal education, upon the completion of this handsome and well-equipped building, which tonight we formally dedicate to the purposes of science and of instruction in medicine. For those of us who have had the matter in our immediate charge, and have been interested in establishing ourselves in the different laboratories and offices, this is a moment of supreme joy, and of pride, not unmixed with emotional excitement. The requirements in medical education, through the growing demand for practical experience in pathology, chemistry, and clinical work, have so advanced within recent years, that our new quarters, constructed expressly to meet such demands, are coming to be regarded as the most perfect building of the kind in this country, and perhaps in the world.

This work, which was undertaken about two years ago, has been pushed with zeal and perseverance, and is now a thing accomplished. Some of us have thought that our undertaking was great, but it withers into insignificance when compared with the achievement of those who first created and then built up the University of Buffalo, from 1846 to 1848. The old medical college building, which we are leaving, was certainly a credit to the time and to those by whose energies it was erected. It has answered all demands until recent years, when the development of our university and the requirements of medical education outgrew its capacities. With our enthusiasm at this moment, there is mingled a feeling of regret that the old stand must be abandoned. It has been for years associated with our arduous labors. It has been one of the landmarks of the city. It seems fitting that the history of the university should form the theme of this address, and should lead up to such suggestions as are proper to be presented with reference to its present condition and the prospects of its future.

The birth of the University of Buffalo occurred in a small office on Main street, in which were gathered some energetic young lawyers and doctors. It was there that the plan was quietly formulated to procure a charter from the legislature, and to lay the foundations broad and deep for an educational institution, with

special reference to the training of doctors and lawyers, but having the powers of a university and unlimited capacities for future development.

It should be remembered that Buffalo at that time had a population not more than one-tenth as large as at present. The physicians of the entire city did not equal in number those who are today directly connected with the university. The lawyers were comparatively few, and with slender purses. The town was full of vigorous, able men, whose chief resource, however, was energy; while the undeveloped condition of the city made the concentration of any considerable amount of money a thing almost unattainable.

The efforts of these men resulted in drafting a charter or special act of incorporation, which was passed by the legislature on May 11, 1846 (Chapter 193, Laws of 1846). It was chiefly through the energies of Nathan K. Hall, at that time representative in assembly, and of the senator from this district, Dr. Carlos Emmons, a much esteemed and eminent member of the medical profession, that this charter was procured. We can learn from old documents that it required some skillful management on the part of Mr. Hall, to overcome the opposition of a select number of our own citizens. But the aims of the broad-minded promoters of the plan were completely successful. Their charter was hewn out upon lines which provided amply for all possibilities then foreseen, "for the purpose," as is stated in the first section; "of promoting literature and science by establishing and maintaining a university." It has only been found necessary to amend it twice,—in 1847, (Chapter 34,) by adding some details relating to a quorum of the council, and to diplomas; and in 1859, (Chapter 117,) by providing expressly for the creation of an academical or preparatory school, and for a mechanical school, and, further, for the acquisition and use of certain real and personal property and the exemption of certain real property from liability for debts.

The original charter declared that the university should have capital stock not exceeding $100,000 in amount, in shares of $20 each, and that, at least, $20,000 should be subscribed, and $2,000 paid in, before the corporation could be organized. The stockholders thus created, that is, the persons who by their subscriptions made the university possible, were to elect a "council" of sixteen members, who with the mayor and recorder of the city as *ex-officio* members, and representative members appointed by the several

faculties of the university, should be the governing body of the corporation, should select the several faculties, and exercise all the corporate powers. This privilege of electing members of the council, and of filling four vacancies at the annual election, was the only one given to the stockholders. There was no suggestion, and obviously no possibility, of a dividend on their stock, or of any pecuniary profit from it. But, recognizing the possibility that the stockholders might not attend the annual meetings for such elections, the charter wisely provided that in this event the council could "supply all vacancies remaining in the board." In other words, although based upon this plan of issuing shares of stock to the original subscribers, the corporation is not a stock company in the ordinary sense of the word, but is purely an educational institution, what the lawyers call an eleemosynary corporation, which was expected to be controlled by the original donors of its funds, and by their successors and assigns, through their ownership of its stock, but to be managed for the public good and not for private gain.

After the charter was obtained, it was necessary to get subscriptions for $20,000, upon which at least ten per cent. must be paid, in order to place the corporation upon a legal footing. This was finally accomplished.

The steps taken toward organizing the university under its new charter are preserved in a small book of record, written by Nathan K. Hall, the first date in which is May 29, 1846. It is recorded that "pursuant to the act to incorporate the University of Buffalo, the undersigned have this day met at the office of Hall & Bowen, . . . and have organized by the appointment of Gaius B. Rich as chairman, and Nathan K. Hall as secretary. After which it was, on motion of Mr. J. G. Masten,

Resolved, That the book for subscriptions to the capital stock of the corporation created by the act to incorporate the University of Buffalo, be opened at the office of Gaius B. Rich, in the city of Buffalo, on the 5th day of June, 1846, at 10 o'clock A. M., and to remain open at the same place until the election of the council of the university, and that notice of the same be published in the city papers.

The contributions to the stock which are recorded in this book amount to 1,009 shares, or a little over $20,000. There were nineteen subscriptions for one share each, one for five shares by S. G. Austin, and three for ten shares each, by Horace M. Congar, Wm. Tweedy, and George N. Burwell. All of these were for the medi-

cal department, except one share. One subscription for 150 shares was made by Theodotus Burwell for the law library. Dr. Austin Flint subscribed for 208 shares for the medical department, and 195 shares for the medical library, and Dr. Frank H. Hamilton subscribed for 207 shares for the medical department and 195 for the medical library.

The persons who thus subscribed for the stock of the university, elected its first council, since which time the stockholders have never held a meeting or taken any further action. The first council consisted of Ira A. Blossom, Millard Fillmore, Isaac D. Sherman, Elbridge G. Spaulding, Theodotus Burwell, George R. Babcock, James O. Putnam, Hiram A. Tucker, Gaius B. Rich, Orson Phelps, William A. Bird, Orsamus H. Marshall, Thomas M. Foote, George W. Clinton, John D. Shepard, and Joseph G. Masten. Truly a distinguished list of names in the history of Buffalo. The council so chosen has continued to perpetuate itself down to the present time.

By this council, the first faculty of the medical department was immediately appointed. It was composed of James Hadley, professor of chemistry and pharmacy ; Charles B. Coventry, professor of physiology and medical jurisprudence ; James Webster, professor of special and general anatomy ; Charles A. Lee, professor of materia-medica and pathology; Frank H. Hamilton, professor of practice and of clinical surgery ; James P. White, professor ef obstetrics and diseases of women ; Austin Flint, professor of the principles and practice of medicine and of clinical medicine. These are the men who had been most active in the movement to organize the university from the outset, and upon whose subsequent labors its prosperity depended. They thus formed the nucleus of the new university.

The names and the achievements in medicine of some of these men, individually and as a body of co-laborers in building up this school of medicine, are familiar to our ears as household words, as are the names and the deeds of four others who later took places among the teachers of the school. I refer to Moore, Dalton, Miner, and Rochester, who, succeeding Hamilton, Flint, and Coventry, formed a body of medical practitioners and instructors which it would be hard to equal at that or any other day.

Let me stop for a moment to remind you that at least three of these distinguished men first made in Buffalo the reputations which led to their being called elsewhere, to fields of larger and more

conspicuous labor. It is an open secret that it was the danger of a repetition of this severe blood-letting process in 1891, which convinced us of the necessity for providing ourselves with larger and better quarters for our work, so as to make it more attractive and profitable, and to enable us to keep some of our best instructors.

The first circular of the medical department, which comprised all that there was of the university, was issued in the autumn of 1846. Funds, to a considerable amount, were expended for the purchase of pathological and anatomical material, and for refitting a building on the north-east corner of Seneca and Washington streets, known as the old post-office building. The first course of lectures was begun in the spring of 1847, and at the end of four months terminated with the graduation of eighteen students, out of a class of sixty-seven. They received their degrees from Millard Fillmore, who was the first chancellor of the university, and held this position until his death in 1874.

In reviewing the requirements for graduation which were adopted in these early days, we note that they were not second to those of any other medical school in the country, and that in some respects the new university took the lead. I am convinced from the perusal of early reports that the University of Buffalo was among the first, if not the first, to adopt the requirement of practical anatomy or dissection as one of the prerequisites for graduation ; also that it was one of the earliest institutions to extend its sessions to six months. But the latter step resulted in such a falling off of its students that the faculty was forced to the conviction that the profession would not uphold them in so radical an advance.

In respect to its term of instruction, and to the number, as well as the ability of its faculty, the University of Buffalo compared favorably with other leading medical colleges. It had seven professors and a term of four months, with a preliminary term of one month. The medical department at Harvard, at that time, had a faculty of seven professors, and a term of four months ; Yale, six professors, and sixteen weeks ; the University of the City of New York, six professors, and four months ; the University of Pennsylvania, seven professors, and five and a half months.

The second session of the medical department was attended by ninety-three students, of whom thirty-four graduated. The third session was conducted through the winter, and was the term of six months already referred to. It closed with a graduating class of

only nineteen, a material reduction as compared with the previous year.

At the opening of the fourth session, there was great rejoicing over the completion of what was regarded as a perfect building for medical instruction, the same one which has been occupied by the medical department from 1849 until 1893. It had become clear that such a structure was needed to insure the permanency, and to provide for the prospective wants of the institution. For this end a subscription was opened in 1847, and after a long struggle the requisite sum was obtained to secure the erection of the desired college building. It was a moment of triumph when this edifice, the complete fulfillment of the ideals of that day, was dedicated in 1849.

The subscriptions which were made for this purpose amounted to about $12,000. I cannot review the list in detail, but without invidiousness I may name A. D. Patchin, who gave $500 and was the first to be enrolled; and Jesse Ketchum, whose interest was always with our educational institutions, bore out his character by giving $600, the largest subscription. The other gifts were of sums ranging from $200 to $20.

An engrossed copy of this subscription to the building fund signed by the original donors, was for many years in the possession of Orsamus H. Marshall, who was a member of the first council of the university, and was its second chancellor, and always its firm and devoted friend. This copy is, tonight, to be presented to the university by his son, Charles D. Marshall, and will be preserved among our most valued records of that early period of storm and stress. I may add, here, that the generosity of those whose subscriptions have aided and shall aid in our latest development, will be recorded and preserved in the same way.

At the dedication of the building, Dr. Austin Flint delivered the principal address, in which he described its features and advantages. Many of the historical facts which I am able to present to you tonight are taken from his paper. He describes the discouragements of the original subscription committee, consisting of Fillmore, Hall, and Marshall, and gives great praise to Orlando Allen, who came to the aid of the movement at a critical point, and by his labors contributed largely to its success, and to James Hollister, and in general to the younger men of the city. It was to these young men of energy but of limited means, rather than to the larger capitalists of the day, that the credit for its final triumph was chiefly due.

Dr. Flint spoke of the new building, the pride of their hearts, as follows :

The building is situated on the corner of Virginia and Main streets, in a pleasant part of the city, somewhat elevated and sufficiently removed from the center of business to be free from the noise and disturbance of the latter. The style of architecture is Norman, or more properly Romanesque, a style regarded as peculiarly appropriate for buildings designed for similar purposes. The windows are arched ; the walls of red sandstone, resembling the New Jersey redstone, of which Trinity Church, of New York, is built. They present a rough, unhewn surface, the effect of which is to give an appearance of massiveness, age, and strength to the building, and which accords with the style of architecture adopted. The lecture rooms present one peculiar feature which has excited great attention. They are seated with cast-iron chairs, with bottoms firmly screwed on *cushioned benches.* They are pleasing to the eye and exceedingly comfortable to the sitter, in fact combining all the advantages of a luxurious arm chair. The right arm of each chair is expanded for the purpose of taking notes, and, the whole being painted, it presents quite an elegant appearance. We know of no educational institution in which similar provision for the physical ease of the pupil exists. If the faculties of the mind are inactive, it will not be because the attention is absorbed by uneasy sensations of the body ; and while the latter are obviated, the indulgence of postures favorable to indolence and sleep is effectually prevented.

The advantages of the medical school, in its new location, were greatly increased by the establishment, in 1848, of a hospital near it, on Virginia street, under the direction of the Sisters of Charity, with a capacity of 100 beds, which was soon increased to 200.

It would be interesting to follow in detail the history of the university, or rather of the medical department, which was its only outward manifestation, from its beginning to the present time ; but suffice it to say, that the council and medical faculty, having succeeded through gigantic efforts in carrying out their immediate intention, rested. No further outward developments followed until 1886.

In the meantime, the name and the idea of the broadly-planned University of Buffalo passed out of the public view, and were almost forgotten. The Medical College, as its one existing department was commonly called, was well known. Its professors were respected as teachers and as leaders in their profession. Its building, grown dark and weather-stained, frowned with its grim portal upon what had become a busy and crowded part of Main street, and sent forth classes of long-haired and be-shawled students,

whose supposed practices were such that they and their place of instruction were rather feared and avoided by the masses of people. But all the far-reaching possibilities of a great uni versity a seat of general education, which were locked up in the terms of our charter, and even, as I have said, the very name of the university, were forgotten.

It is not strange, then, that a prominent and well-informed citizen, when recently asked for a subscription to the University of Buffalo, for its new medical building, said: "What is the University of Buffalo? Is it a new thing? I never heard of it;" and could hardly be persuaded of the facts. Be it remembered, however, for the encouragement of future efforts, that this same gentleman, when the facts were explained to him, gave liberally to help us in our present needs. And this points a moral, which can be drawn from the earlier and later struggles of our institution—that the people of Buffalo are liberal with money and with aid of every kind to assist all worthy enterprises which are fully, and candidly, and earnestly presented to them. So long as we deserve their support and make them understand our needs, they will not fail us.

The records of the council meetings, between 1850 and 1886, contain an occasional suggestion for the establishment of a law department; and, curiously enough, the medical journals contain memoranda of suits for malpractice, and for libel, which naturally diverted the energies of the then young faculty from any notable attempt at enlarging the scope of the institution.

But, during these early years, Flint, Dalton, and Hamilton gave themselves up to the occupation of teaching and of recording their clinical cases, and to preparing for their subsequent literary labors, which are now embodied in volumes of the very highest authority in their several fields of medicine, physiology and surgery. Dr. White, although not distinguished as an author, became an authority of the first rank in his special department, obstetrics. He assumed control, and was practically the manager of the infant university, from the time when he aided at its birth in 1846 until his own death in 1881, and held the reins of government over it with a firm and judicious hand. It is from the time of his death that the regime of the present faculty practically begins.

The medical department had the usual ups and downs of a poor and struggling technical school, but in the main it grew and progressed, as it could not fail to do with such a body of instructors.

All of these early teachers have passed away, except noble old Dr. Moore, who still preserves a connection with the school—a living example of the greatness of the men who have been connected with this college. Their places have been filled by younger men, who have labored hard, and, I venture to say, successfully, to keep up and constantly to advance the standard of practice and of medical teaching which their predecessors had set so high.

It must be left for others than myself to make further comments upon the recent work of the medical department and its instructors. Certain it is that the school has grown under their management in numbers, and influence, and public respect. The present governing faculty still consists of seven members, who, named in the order of seniority, are Charles Cary, Matthew D. Mann, Roswell Park, Julius Pohlman, Charles G. Stockton, John Parmenter, and Herbert A. Hill; but with them is associated a large body of professors and instructors in special subjects, which brings the number of the teaching force up to forty-four. Its body of students has advanced to 157. Its course now consists of three years, occupying over seven months in each year, besides a spring term of two months. It is now, as it was in earlier days, one of the leading schools of medicine in the country. The city of Buffalo has a right to be proud of it; and we, its teachers, felt that we had a right to ask the people of Buffalo to help us to provide ourselves with new and adequate quarters, such as we are now to occupy.

In 1886, the medical faculty urged the council of the university to establish a department of pharmacy, in which students could attend jointly some of the lectures of the medical faculty, in addition to courses of instruction from a special faculty in pharmacy, and could receive the degree of graduate in pharmacy. This department was then created. Its first faculty was composed of the following able teachers: R. A. Witthaus, professor of pharmaceutical chemistry; E. V. Stoddard, professor of materia medica; Willis G. Gregory, professor of pharmacy; David Kellicott, professor of botany; F. P. Vandenburgh, professor of general and inorganic chemistry. It is due to Dr. Vandenburgh to say that this department was organized largely through his untiring energy.

From its first establishment the department of pharmacy met with a success far transcending the most hopeful expectations pictured at the time of its creation. Its first year opened with a

registration of thirty-nine students, who showed keen appreciation of the opportunities offered to them; and there has been an increase in attendance in this department, until this year the class numbers sixty-five. At no time has its onward march met with a single check.

No additional departments were organized until May, 1891. Then the law department was created, with Judge Charles Daniels as its dean. It must, however, be recalled, that the Buffalo Law School had been in existence for several years prior to that date, having been founded in 1887 by members of the local judiciary and bar. It was this existing law school, with its body of instructors and students, which united with us and became the law department of the university. Its first faculty was as follows: Charles Daniels, dean and professor of constitutional law; LeRoy Parker, vice-dean and professor of the law of contracts and municipal law; Charles Beckwith, professor of equity jurisprudence; George S. Wardwell, professor of the law of torts; Albion W. Tourgee, professor of legal ethics; Spencer Clinton, professor of the law of property; James Frazer Gluck, professor of the law of corporations; George Clinton, professor of maritime law and admiralty; John G. Milburn, professor of the theory of law, codes, and codification; Adelbert Moot, professor of the law of evidence; Tracy C. Becker, professor of criminal law and procedure, and medical jurisprudence; Charles P. Norton, registrar and professor of the law and practice of civil actions; Carl T. Chester, professor of the laws of marriage and divorce, and special proceedings; E. Corning Townsend, secretary and treasurer, and professor of the law of domestic relations.

Encouraged by the success which they had met in establishing these departments, the council, in 1892, with the coöperation of some of the most competent dentists of the city, organized a dental department. The department had a governing faculty of four professors: William C. Barrett, professor of the practice of dentistry and dental pathology; Alfred P. Southwick, clinical professor of operative dentistry; Herbert A. Birdsall, professor of dental materia medica and therapeutics; Franklin E. Howard, professor of operative dentistry. This original faculty has associated with themselves sixteen other professors and instructors in special subjects. The department brought together forty-seven students in its first year, which is more than any other school of dentistry is known to have had at its opening session.

The total number of persons now connected with all departments of the university, as governors, teachers, and students, is 483. So large a body of earnest workers in the cause of education cannot fail to exert an influence for good in the community, which will be more and more felt in the future.

The establishment of these three new departments within the past few years and the conspicuous progress of the medical department, have awakened the people of Buffalo to the existence of a university in our midst, in fact as well as in name. But the end is not yet; the developments which should make the university fully worthy of the city are only fairly begun. We shall call upon you to help in carrying them forward.

It seems proper at this time to make public the proprietorship of this institution. Enough has already been said to explain the basis of the organization of the university, upon the theory that the original subscribers to its funds were to become stockholders, and, as such, were to elect the council to manage its affairs. But, as already stated, after electing the first council, the subscribers to the stock never held another meeting or exercised any further powers. No certificates of stock were issued to them, and apparently none were expected, for, as Dr. Flint states, "the public spirit exhibited by these subscribers is enhanced by the fact that they gave freely, without expectation of pecuniary return." The affairs of the corporation, while it consisted only of a single department, were thus managed nominally by the council, but actually by the medical faculty, through the acquiescence of the council.

It has been supposed by some who chose to withhold their aid from the university that it was controlled by one person. But in all fairness to any one who may have been suspected of such business acumen, it should be stated that at no time in its history, until now, has there been any documentary evidence that there were stockholders. Within recent years the looseness of the existing state of things, with no stockholders to exercise the powers conferred by the charter, was for the first time appreciated, and an effort was made to correct this irregularity and defect of the early proceedings. Orsamus H. Marshall, as chancellor, was the first to attempt to place the university upon an unassailable footing, by procuring assignments of the original stock subscriptions, with the idea that the stock should then for the first time be issued; but before his work was completed, death withdrew him from the

council. In 1884, the attempt was resumed. Assignments of their original stock subscriptions were procured from some of the subscribers, or their representatives. These assignments were made to the then members of the council, to be held by them as joint tenants for the benefit of the university.

Our new building, however, has effected a more complete transfer of all the stock subscriptions than could probably have been accomplished under any other circumstances than an urgent demand for funds. It was necessary to borrow $100,000 by a mortgage upon the property. The law required that before this could be done, the consent of at least two-thirds of the stockholders should be obtained. To satisfy this demand it was necessary that there should be stockholders. In the face of such an emergency, the work was resumed with renewed ardor, in 1892, by a special committee appointed by the council, of which Ansley Wilcox was the chairman. By corresponding with heirs and by seeking them out, there was finally procured for the council of the university the assignment of 809 shares,—more than four-fifths of all the original stock list, including the large subscriptions made by Drs. Austin Flint and Frank H. Hamilton. The stock was then, for the first time, issued to members of the council as joint tenants, to hold it for the benefit of the corporation. The readiness with which all who were approached yielded their claims and made the required assignments to the council, has enabled the University of Buffalo to be placed upon an absolutely firm and permanent legal footing, and has hastened the completion of the new building which we are occupying tonight.

It remains for us to consider more in detail the necessities which led to the erection of our new medical college building, and what has been achieved in this connection, and what is to be done.

It was for many years manifest to those actively connected with teaching in the university that the quarters of the medical department, on Virginia and Main streets, had been outgrown. Plans were prepared and submitted to the council for a very material addition to the old building. The matter was considered in all its phases, and much preliminary work was done. But the first formal record of any action is that taken on May 6, 1891, when the die was cast, and it was resolved to complete the purchase of land on High street, part of the Goodrich lot ; and, further, that a committee of three be appointed from the council to form, with two members from the faculty, a joint committee, whose duty it was to

procure plans for a complete building for the medical department, at a cost not to exceed $125,000. At that time a considerable amount of money had already been subscribed by some of our public-spirited citizens, and the possibility of effecting this purchase and the erection of a new building was apparent. The lot was purchased for $22,275.

That the medical department might not be embarrassed by any debt remaining upon the new building, the council passed a resolution to the effect that it was not for the best interest of the university that any portion of its current income be diverted from the channels of teaching, and that whatever indebtedness might be incurred in the present undertaking, be provided for by the council, until paid by the mortgage and sale of property, and by subscription.

The joint committee of the council and faculty consisted of Charles Cary, chairman, Roswell Park, Edmund Hayes, J. J. Albright, and Robert Keating, who procured the service of George Cary as architect. In November, 1891, a set of plans was submitted for approval. Bids were received, and the same committee was authorized to contract for the erection of the new edifice at a cost of $124,888. From that time the building has been carried forward rapidly to completion. The first lecture was delivered in Alumni Hall, on January 6, 1893, by the present speaker. Since that date we have gradually been moving into it.

It is not too much to say that an unusual share of the credit for this building is due to our architect. From the first completion of his plans, which combined artistic merit with a practical adaptation to the necessities of the structure and the requirements of its occupants, on to the reception of the contractors' bids, which furnished a rare pleasure by coming within the estimates, and finally down to the completion of the whole in a substantial and durable manner, within the original estimate, the architect's work has given thorough satisfaction to the building committee. It is but just to him to award this meed of praise.

I should not properly follow the example of my distinguished prototype, Dr. Flint, on the similar occasion in 1849, to which I have referred, if I failed to make formal mention of some of the many beauties and advantages of our new building. Your inspection of it makes it unnecessary for me to enter into much detail. And as you are not sitting on the luxurious cast-iron chairs, with "cushioned benches," which Dr. Flint immortalized, (and which are

still preserved in our lecture hall, and also in the dispensary, for the benefit and delight of future generations of students,) I am warned to be brief.

But to preserve for posterity, as Dr. Flint did, our present impressions of our new home, let me say that the building is classic in its architecture. Both the architect and the committee have had before them the idea, which they have tried to realize, that in its exterior design and in all of its internal appointments and ornamentation, there should be a purity and simplicity of style and of construction, combined with usefulness and economy both of space and material, and a direct and obvious adaptation of all parts to their known purposes, which would make it a structure tending directly to the elevation and refinement of our youth, and in itself an educating influence. Therefore it is that the faces of Flint and of Hamilton are placed in relief upon its facade. And in the main college hall you may see, emblazoned in letters of gold, the names of eminent physicians of foreign countries, and of the United States, and of some natives who are given a place in this grand company on account of their connection with the University of Buffalo.

It was partly for the sake of this educating influence, as well as for economy, strength, safety, and cleanliness, that the open system of internal construction was adopted, which avoids all concealed spaces, and exposes every plank and timber, and every pipe to view,—so that a walk through the building may be said to be a lesson in anatomy.

The building contains three lecture rooms, with a seating capacity varying from 100 to 350 chairs; several private offices; a dispensary large enough to care for 250 patients daily; chemical-anatomical, physiological, pathological, and bacteriological labora, tories, and excellent accommodations for the medical and scientific library, as well as rooms devoted to the use of the various branches of the medical department, and some allied purposes. The library rooms are fire-proof, and contain our present library of about 4,000 volumes and 5,000 unbound pamphlets. They are capable of holding about 40,000 volumes.

To meet the cost of the new lot and building, amounting to about $150,000, we had our old college property, which is estimated to be worth $70,000, and which we have mortgaged, with the new property, for $100,000; and we have raised by subscription $45,000. With these limited resources, trusting in providence and in the liberal support of the people of Buffalo, we have

carried through our undertaking. But this statement shows that we are left with a heavy debt and a large interest charge to be met.

The university began at once to feel the new position which it was to hold in the community. Ere the building had been much more than started, a liberal bequest of $20,000 was received by the will of Jonathan Scoville. This sum practically reduces our debt, including accumulated interest, to $20,000, or $25,000 depending upon what we realize from our old property.

Mrs. John C. Graves presented the beautiful medallion heads of Doctors Hamilton and Flint, which she herself made, to adorn the entrance to the building.

Mrs. Esther A. Glenny gave, as a memorial to her brother, Dr. Burwell, his library of 1,418 volumes, besides pamphlets, to collecting which he had devoted many years of his life. In addition to this, Mrs. Glenny endowed the university with $2,500 for the maintenance of the Burwell library.

It should be mentioned here, as a matter of history, that our library was really started by James P. White, through the gift of the valuable medical books of his father, Dr. White.

All of us who have been interested, either as teachers or as managers of our new and enlarged enterprise, have felt that this undertaking has been the means of placing us in such relationship with the liberal people of the city, that the means will not be lacking to pay off our indebtedness, and to sustain any undertaking directed to enlarging our sphere of usefulness in education.

In this belief it is already proposed to establish a preparatory school, which is expressly provided for in our charter, as amended in 1859, where the youths of our city may receive a preliminary education for the ordinary business of life, or such as to enable them to enter the academical departments of other colleges, or the schools of any of the learned professions. This is likely to be the next step in the expansion of our scheme.

It is also urged that we should create a school of veterinary medicine, which would help to place this branch of medical science in its proper position in relation to the community and to modern medicine.

Following these, in natural order, would come a separate department or some special provision "for instruction in practical mechanical science, mining and engineering," and also, perhaps, "in the science of teaching." The express authority to establish

such courses of instruction is likewise found in the charter as amended in 1859.

I know of no reason why there should not be an art school, organized and conducted under the broad charter of our university. This might come about either through the association with us of some existing school of art in Buffalo, or through the establishment of a new one. I venture to suggest, but without committing any one to such a proposition, that this would be a most desirable consummation.

These ideas, if carried out, would provide us with all of the departments of instruction which are usually included in a university scheme, except an academical department, or school of letters and liberal arts, which is ordinarily in this country the central and most important member of such institutions.

At this point our dream of developments to come must stop. It seems hardly probable that Buffalo will, at any time in the near future, be a suitable place for the establishment of such an academical department; and yet, who can tell what the future may bring forth? It is sufficient for us to know that our charter gives ample authority for the creation of such a department, if the demand for it arises and if the means to establish it are forthcoming.

Enough has been said to indicate how large are the possibilities of our future, and what an amount of work may lie before us in carrying on to its complete development the scheme of university education which was thought out by Flint, Hamilton, and White, and by Hall, Marshall, Fillmore, Ketchum, Patchin, Burwell and Allen, and their associates, in 1846. Let us devoutly hope that we shall not fall short of realizing their anticipations, or fail in the duty to our university and to the city which our relations with this body impose upon us.

We note with pleasure an addition to our exchange table in the form of The Buffalo Medical and Surgical Journal, which has become one of the most acceptable journals of the present day, owing to many strong features it possesses, most prominent of which is its Review Department. The genial editor, Dr. Potter, can well be proud of his "Reviews," for they are deserving of only the highest praise and bid fair to outrival the well-known "Reviews" of the *American Journal of the Medical Sciences*.— . . .

Original Communications.

THE DIAGNOSIS OF GASTRIC DISORDERS.[1]

By ALLEN A. JONES, M. D.,

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THREE groups of facts are considered in the diagnosis of gastric disorders:

1. The symptoms.
2. Those obtained by external examination.
3. Those obtained by direct examination.

The chief symptoms of gastric disorder, varying in number, degree and character in different cases, are pain, distress, weight, burning, eructations, regurgitation, nausea, vomiting, perversion of appetite, coated tongue, constipation, and diarrhea. More remote symptoms are anemia, vertigo, convulsions, epileptoid seizures, headache, and a host of manifestations ordinarily observed in neurasthenia.

Pain may be slight, or of such agonizing intensity as to cause the sufferer to cry out uncontrolledly, or to become rigid and pale. It may be diffused over the epigastrium, or localized, as in ulcer or cardialgia. It is a symptom of diagnostic import when it is a localized boring, gnawing, burning pain, and is accompanied by anemia and other evidences of gastric ulcer; or when it supervenes suddenly, with no relation to the time of eating or drinking, when it is of great degree, and is associated with extreme nervousness, as in the essential gastralgias.

In malignant disease of the stomach, pain may or may not be present. Aside from these conditions, pain is not of much diagnostic value, as it is inconstant, and is present in conditions of good gastric digestion, while absent in cases having serious gastric anomaly. When severe gastric pain exists without sufficient apparent cause, the nervous state of the patient will bear close scrutiny.

Distress, *weight*, and *burning* may be considered together. They are very frequent complaints of gastric disease, and exist in ever varying degrees as do the other symptoms. A vague distress predominates in one and burning in another. One or more of these may signify a loaded stomach, a stomach distended with gas,

1. Read before the Section on Medicine of the Buffalo Academy of Medicine, Jan. 10, '93.

too acid contents, or gastric hyperesthesia. They are indefinite in a diagnostic sense, and are simply expressions of a condition which remains to be determined by proper methods.

Eructations of air or other gases occur chiefly in certain gastric neuroses and in fermentative conditions. The most pronounced and obstinate cases are seen in neurotic individuals. Ewald suggests that in many of these cases the eructations consist of air which is taken only into the esophagus, and that the belching is not really of gastric origin. Leven, some years ago, said the eructations consisted of air ingested, and of gases from the blood and intestine, but not from fermentation of the food. The gases belched from the stomach have been analyzed several times, but no diagnostic data have been established thereby.

Regurgitation is suggestive of either a motor neurosis of the stomach, excessive acidity, gastrectasia, or a general neurotic state, observed in young women who present the condition called rumination or merycismus. If from a motor neurosis, it may assume the form of an undue relaxation of the cardia to normal intragastric acidity, or other stimulation ; or it may occur from relaxation of the normal cardia under the influence of excessive peristalsis, or antiperistalsis, from any cause. Regurgitation of food soon after its ingestion may be so copious and persistent as to interfere with nutrition in a serious degree, but I have repeatedly found an abundance of stomach contents three or more hours after meals, which neurotic girls said they had entirely regurgitated. Occasionally, well-nourished persons inform us that they are starving to death, because they cannot retain their food, but the stomach tube reveals the truth.

Nausea is by no means necessarily a symptom of gastric derangement. It is, however, present in cases of malignant disease of the stomach, and in chronic gastric catarrh with a marked dyscrasia. It is more often a symptom in old people, and occurs when the tissues are poorly fed, when the cerebral and other vessels are sclerosed, and when elimination has become notably defective. As is well known, nausea and vomiting occur in the toxemia arising from renal insufficiency, and yet the mistake is not infrequently made of treating a chronic gastric catarrh with bismuth, pepsin, and dilute muriatic acid, without examining the urine. It is often a reflex as in pregnancy, pelvic disease, or eyestrain. It may be induced by grief, care, excitement, or disgusting sights. It may accompany disease of the central nervous system, or occur as a

reflex from peripheral irritation. Sometimes irritating ingesta, hyperacidity, or other intragastric anomaly, will induce nausea, and when it occurs with the periodical vomiting of gastrectasia, it is an expression of gastric intolerance and poisoning from the toxines formed within the stomach. It may be caused by drugs or various toxemias. Hence, it is not of much utility in diagnosing gastric conditions, as it is present in such a diversity of disorders.

Vomiting may occur occasionally, persistently, or periodically. It may be projectile and easy, or difficult and painful. It is a common symptom of gastrectasia, cancer, and the gastric conditions of chronic nephritis. Vomiting may be of great diagnostic aid, or afford little information. On the whole, it may be said no symptom of gastric disease is of as great utility in diagnosis as vomiting, for the vomitus of ulcer is sometimes hemorrhagic, that of cancer often of coffee-ground character, that of dilatation with stenosis is foul, fermenting, and contains food taken days before. Then the vomitus, if sufficiently copious, may be studied microscopically and chemically, thereby shedding a flood of light upon the case. What has been said of the causation of nausea also applies to vomiting, but the latter is of much greater value as a diagnostic symptom of gastric disorders.

Perversion of appetite may assume the form of anorexia or bulimia in one of many degrees, or express itself in a craving for unusual articles of food. Thus many varieties of perverted appetite are encountered. Some of these are the outward expression of inward nervous, blood, or glandular disease, while others of them may be ascribed to depraved gastric innervation. In gastrectasia the appetite is often enormous and is always unsatisfied. Some cases of hyperchlorhydria desire food every two or three hours, while others with similar gastric conditions are never hungry. Perversion of the appetite affords scant diagnostic criterion.

So it is with the *tongue*. Some cases with the worst gastric conditions have the cleanest tongues, while others, with no gastric anomaly, have habitually coated tongues. A coated tongue is no certain indication of gastric disease, but may exist with such disorder. Usually, however, a coated tongue depends upon unhealthy buccal, nasal, or throat conditions, or upon toxemia of some character.

Constipation is present with dilatation of the stomach, with or without pyloric stenosis. Usually, however, it is more obstinate

when stenosis exists. In hypotony of the gastric musculature, without dilatation, constipation is the rule.

Diarrhea may be one expression of impaired gastric digestion with excessive peristalsis, which has been continued to the large intestine. Lienteric diarrhea is suggestive of a gastric motor neurosis in the form of undue relaxation of the pylorus. Fermentative gastric conditions may induce gastro-intestinal catarrh, accompanied by diarrhea; and it is this form of occasional irritative diarrhea that occurs in gastrectasia.

EXTERNAL EXAMINATION OF THE STOMACH.

Inspection, palpation, percussion, and auscultation are the methods employed in examining the stomach externally. They are practised separately and combined to determine the size, shape, position, and other conditions of the organ.

Size.—The most important fact to determine is the size of the stomach, as much of the therapeusis in a given case hinges upon that. Is the stomach of normal size, large, or dilated? Roughly, the lower border of the healthy stomach, in the adult, lies from one to one and a half inches above the umbilicus; a trifle higher in women than in men. It may reach the upper edge of the umbilicus, however, when distended with food, liquid, or gas, or, as is most common, a combination of these, and still be within physiological limits. When, nevertheless, the lower limit of gastric resonance is constantly at the umbilicus, whether or not the organ be filled, either megastria or moderate dilatation exists. When the lower border can be demonstrated below the umbilicus, gastrectasia is present. Sometimes the gastric contour may be seen bulging out three or four inches below the umbilicus, while palpation and percussion respectively elicit gastric splashing and resonance. If the abdominal walls are thin and relaxed, the splashing is usually easily produced by successive dips with the fingers over the gastric area from above downwards, or the patient may make it by alternate contraction and relaxation of the abdominal muscles. In the dilated stomach this is heard as far as the lower limit of the organ, and is almost characteristic to the practiced ear. If the percussion note be not satisfactory, resort to Frerich's simple means of inflating the stomach by gas evolved from the fusion of bi-carbonate of soda and tartaric acid within it, and thus the limit of resonance will be found to coincide very nearly with that of clapotage. Many methods of determining the

size of the stomach are in vogue, the majority of them requiring the combined internal and external means of examination. I cannot take them up in this short paper.

Shape and position.—By inflating the stomach, its shape and position may be ascertained. It may be deformed, as in hour-glass contraction, vertical, horizontal, or pouched. Gastroptosis may be present, as may be demonstrated by defining the upper border of the stomach by palpation or percussion, which cannot be accomplished in health ; or by the gastrodiaphan.

Neoplasms.—Malignant disease of the stomach may be apparent by external examination, but often escapes the closest search for it. In a case of persistent vomiting, with evidences of gastric catarrh, and a constant absence of Hcl., five physicians beside myself, all felt a suspicious enlargement in the region of the pylorus, and we agreed that the case was one of malignant disease of the stomach. I examined the urine several times, but found no albumen nor casts. The post-mortem revealed chronic Bright's disease, but no neoplasm in or about the stomach.

In November, 1889, Dr. Max Einhorn, of New York, read before the German Medical Society of New York, an article entitled "Die Gastrodiaphanie," and he was the first to transluminate the stomach in man. Mikulicz and Trouvè illuminated the interior of the stomach about twenty years ago, but did not transluminate the gastric area in a dark room. In the New York *Medical Journal*, of December 3, 1892, Dr. Einhorn presents a communication upon Gastrodiaphany, illustrating the manner of determining the gastric areas in the normal state, in dilatation, and in gastroptosis.

DIRECT EXAMINATION OF THE STOMACH.

If the tube cannot be used for direct examination, a small quantity of gastric contents may be withdrawn by Einhorn's stomach-bucket, which consists of a little solid silver receptacle, about the size of a thimble, to which is attached a cord. The bucket is swallowed, and after remaining a few moments in the stomach, is drawn up by means of the silk cord. By the passage of the flexible rubber stomach-tube, we learn whether strictures or diverticula of the esophagus are present or not. Strictures may be spasmodic or organic. Diverticula will usually resist the further passage of the tube, will hold only a little water, and will yield contents, notably lacking Hcl. and the products of peptonization. The stomach contents may also do this, but the tube will have passed beyond the cardia without opposition.

I will not attempt more in this paper than to give a summary of the facts learned by the study of the gastric contents. The subject is so large that a book might be written upon it.

The stomach contents are studied under the following headings: (*a*) The Food, (*b*) Mucus, (*c*) Odor, (*d*) Acidity, (*e*) Anacidity, (*f*) The Products of Gastric Digestion, (*g*) Rennet, (*h*) Absorption, and others I will not here consider.

The *food* should not remain in the stomach too long nor too short a time; it should be disintegrated and largely in a semi-solid condition in from three to four hours after its ingestion. If food is found which was eaten many hours or days before, dilatation, with or without pyloric stenosis, must exist. If, on the other hand, the stomach constantly empties itself earlier than three hours after hearty meals, an excessive gastric peristalsis, or an undue relaxation or dilatation of the pylorus exists. If the food is present unchanged, with bread simply water-soaked, and likewise meat and other substances, showing no evidence of having been acted upon by solvents, the gastric juice must be markedly deficient or wholly absent.

Much *mucus* present in the contents is evidence of gastric catarrh. It may be thick, tenacious, and ropy, or flocculent. It varies in amount in different cases and in the same case at different times. It is present as a secondary manifestation of passive congestion in chronic heart, lung, and liver diseases, in gastric cancer, gastrectasia, and many depraved conditions of the system, as chronic Bright's disease, etc.

The *odor* may be that of pronounced fermentation, as in dilatation; or of lactic acid; of acetic or butyric acids; or of odoriferous foods or drugs ingested.

The *acidity* of the gastric contents may be due to Hcl. alone, or combined with lactic and other acids; or it may entirely depend upon acid salts. The total acidity is above normal in hyperchlorhydria, or the hyperacidity may be due to lactic or other acids. If Hcl. is constantly in excess, and is present after the food has entirely disappeared from the stomach, the condition is a secretory neurosis called hyperchlorhydria, which may be present alone, or in conjunction with other neuroses. Lactic acid I find abnormally present more frequently than is generally supposed. Very frequently, indeed, in cases of gastric disorder, I find it present during the whole period of digestion. When absolutely nothing but lean beef is eaten, it may be present in large quantity four or more

hours after the meal and, joined with Hcl., give rise to total acidity far above normal.

Anacidity of the gastric contents generally accompanies hypotony, atony, or dilatation, and there are usually present no evidences of gastric digestion. The contents may be habitually neutral in reaction, and many hours after meals the stomach empties itself into the intestine which performs the whole of digestion in a more or less perfect manner.

Hypochlorhydria usually exists with an over-production of lactic acid, and the presence of the latter acid seems sometimes to account for the deficient quantity of Hcl., owing to the manifest antagonism between the two acids in the stomach, but many times deficiency of Hcl. depends upon a lowered general nutrition, or is the expression of a secretory neurosis.

Peptone and propeptone afford fairly good evidence of gastric digestion, provided no peptonized food has been taken, and their presence is important to determine. The living stomach is the best test-oven, and when we find the end products of digestion present in fair quantity, we know peptonization has taken place. In cases of anacidity and atony, where the food is simply water-soaked and not digested, no peptone, nor propeptone, is found.

Rennet is absent in some cases of anacidity with apepsia, but is present in normal digestion. It is an important factor in digestion, and its presence is well worth determining.

Absorption is notably impaired in cases of dilatation of long standing. Sometimes several quarts of semi-fluid contents are withdrawn in these cases, and, indeed, more liquid than has been ingested during the several hours preceding. The potassium iodi de test, however, is best suited in this connection, although syphonage often reveals the so-called "dyspepsia of liquids." If a few grains of potassium iodide be swallowed in a gelatine capsule, in from ten to fifteen minutes, in health, the iodine may be detected in the saliva by starch paste; whereas, in impaired absorption an hour and a half or more may elapse before the iodine appears in the saliva.

No. 436 Franklin Street.

Bichloride and Germs.—Recent researches seem to prove that when solutions of corrosive sublimate come in contact with the capsules of microörganisms, that there is a chemical reaction between the two which renders the capsule of the germ impervious, and thus protects it. It is also said that the salts of the blood or alkaline solutions acting on this substance again liberate the microörganism from the capsule formed by the bichloride.—*Courier of Medicine.*

INTESTINAL IRRIGATION—ENTEROCLYSIS.[1]

By FREDERIC W. BARTLETT, M. D., Buffalo, N. Y.

In presenting to the Academy, this evening, the subject of intestinal irrigation, it is not my intention to attempt any description of the anatomy of the large or small intestine, of the pathological changes in disease, or of the various bacilli, more or less prominent, according to modern discoveries, in the causation of acute or chronic organic lesions. But, while I thus dispense with much essential to monographs on important medical subjects, I request my hearers to recall the graphic descriptions of authors, or on reading this essay to turn to Quain, Reynolds, v. Ziemssen, Keating, or other classic works on intestinal diseases, and realize the vast importance of correct treatment. While, primarily, this paper discusses a treatment of dysentery by local medication and manipulation, which I may without offense claim to be largely original with myself, antedating as it does any report with which I am acquainted, of the treatment of dysentery by the special germicidal solution employed, it is intended to apply to all forms of intestinal disease accompanied by mucous, sanguinolent, serous, purulent or septic exudations or secretions from the intestine.

This paper is a summary of reports dating back to the winter of 1883 and 1884 made to the Buffalo Medical and Surgical Association, and at various times since.

In September, 1883, the first case treated occurred, and as it fitly describes the *modus operandi* and results, it will be the only case quoted.

September 8, 1883, I was called to attend George Bauer, then and now residing at 160 Walnut street; occupation, stone cutter; age, 40 years; sick for several days with dysentery. I prescribed treatment usual in such cases for several days, but patient grew worse and on the 15th of September had reached a hopeless stage. The evacuations were small, muco-sanguinolent, frequent, painful, exhausting, and patient had received the sacraments in expectation of inevitable death. Although I had ample experience in the treatment of the malady, and had used various enemata in my previous cases with only partial success, it occurred to me upon the theory of germ causation to test in this case the utility of hydrarg. bichloride in solution. I dissolved four grains in four pints of water, and attaching a catheter to a bulb-syringe, passed the entire quantity within the colon. The patient was promptly placed

1. Read before the Section on Medicine of the Buffalo Academy of Medicine, February 14, 1893.

upon a large jar, and the injected fluid and apparently much hitherto retained fecal matter was expelled. Half an hour later another large motion occurred, and no other passage for twenty-four hours, and this painless and greatly improved. Under anodynes and careful diet the patient, in a few days, was well and returned to his work.

My first report to the Association covered sixty-nine cases, a second report 100 more. I have no record of subsequent cases, but think an estimate of a total of 500 enemata not excessive. I have not, for the last few years, waited for the severer symptoms to be manifested. As soon as a diagnosis of colitis or entero-colitis could be made, the enema has been used. When so employed, a single enema has often sufficed. The age of patients treated has ranged from three months to over seventy years. There have been no cases of septicemia or mercurial poisoning; nothing to discourage prompt and thorough use of bichloride in this way.

I consider the mode of operating important and novel as regards details, and thus describe it :

1. Position of patient.

The patient should be placed upon the *right* side, the back, when in this position, turned to the outer edge of the bed or lounge, the hips brought well to the edge of the mattress and the latter protected by an oil-cloth, folded sheet, or quite as well by a few newspapers.

2. The solution may be readily prepared by using one-half of a seven and one-half grain bichloride of mercury tablet (Wyeth's) or an equivalent in other pills or tablets, dissolved in two quarts of warm water. Bichloride in powders suffers oxidation. The receptacle should be a glazed vessel, preferably a pitcher or two-quart glass fruit-jar. Bichloride will attack a metallic surface.

3. The syringe used should be the elastic bulb, with collapsible tube and continuous current and rubber inlets and exits. Of these I prefer the Alpha, on account of the great convenience of joining the catheter to the exit tube. It is only necessary to cut off the bone tip from an eleven or twelve American to permit the easy and perfect connection by slipping the cut end of the tube well within the exit tube of the syringe.

4. Placing the enema reservoir upon a chair in close proximity to the hips of the patient, with the left hand introduce the catheter. The right hand will thus conveniently grasp the bulb of the syringe, and what, without this attention to details, might be a clumsy and awkward performance, will be accomplished without shock to modesty or delay in execution. Introduce the catheter gently one-

third or more of its length, and ultimately all of it. It is quite unimportant to pass the sigmoid. I have rarely done so. With patient on the right side, the descending colon becomes horizontal and the transverse, a descending tube, thus aiding by gravitation the passage of the enema to the ileum. Introduce the enema as rapidly as can conveniently be done with due regard to the comfort of the patient, and encourage him to bear patiently the discomfort till the whole amount is injected. As soon as this is done, place the patient upon a large jar or vessel of sufficient capacity to receive the evacuation which may be augmented by retained matters in the colon. If the enema is slow to pass, turn the patient upon the left side and avail of gravity and siphonage of the tranverse colon. If not promptly expelled, restore to right lateral position and use more water, omitting the bichloride. Use an appropriate anodyne by mouth or hypodermatically, rather than a suppository, and treat otherwise *secundem artem.*

I have been thus particular in defining my plan for flushing the intestines, because, recently, many who report cases treated by tannin, boric acid, and other more or less useful agents, simply say they use *enemata.* In most cases the patient is placed on the *left* side, and in books on nursing this position has always been advised. It should be abandoned. Again, as regards the quantity used, it varies from a few ounces to a gallon. By the former allowance only the rectum can be flushed, and Dr. W. W. Johnson, of Washington, D.C., in a paper read in May, 1892, before the American Association of Physicians, in session in Washington, favored this plan. He uses double tubes and thinks it quite difficult to pass tubes beyond the sigmoid. I think the difficulty exaggerated, but as a matter of fact the passage of tubes of any kind is unnecessary. He also objects to the bichloride; boric acid or carbolic acid being preferred. He advises the continuous irrigation of the rectum at intervals at first of three hours, and the treatment is continued some days, the flushing being used at longer intervals. His results are apparently good, but I think the plan I have used dispenses with many troublesome details and is more promptly successful. There can be no advantage in using the rectum as a *cess-pool*, to be emptied at regular intervals, when the whole colon can be emptied at one flushing and the mucous membrane be made thoroughly aseptic. The advantage of instantly terminating a morbid process in the entire colon cannot be overrated. I have objected to enemata of three or four quarts of fluid because of the unnecessary

and perhaps dangerous distention of the colon and ileum. It has been shown by Dr. Judson Daland, of Philadelphia, that fluids may be passed post-mortem not only from the rectum to the colon, but also through the ileum, stomach, nose and mouth. While wonderful results may follow large enemata in enteric fever, the inability to diagnose lesions of continuity in the ileum must ever cause the physician to dread induced perforation, possibly from its always fatal results, incurring the penalty of malpractice. As I have previously stated, I have extended the use of germicide enemata to conditions other than dysentery, notably to typhoid fever, of which disease I have treated twenty cases, using enemata practically as *the treatment*, and other medication as adjuvant.

I will here report the first case so treated, and as the result of the other nineteen were successful and practically had the usual distinctive features, it is needless to make detailed reports:

On the 20th of November, 1890, I was called to attend Albert W. Shaw, residing at No. 260 Fulton street. Patient aged about 35 years, was a railroad engineer who had been ill for ten days, but had been advised to keep up exercise. Disease had been diagnosed as nervous dyspepsia. When seen had vital temperature, 105.5°F., pulse 130, so delirious as to require manual restraint, and all the usual symptoms of typhoid fever with rose eruption, abdomen moderately tympanitic, and was said to have had evacuations every fifteen minutes during the day. I deemed it a good case for trying intestinal antisepsis, and flushed the colon with two quarts of warm bichloride solution, 1–8000. The enema and contents of colon were promptly ejected, and in half an hour he had another quite free motion. Patient was given an hypnotic. Morning call, November 21st, had rested better, much less delirium, no evacuation. November 22d, had very good night, no evacuation. Administered enema, 1–8000 bichloride water, two quarts—large, free motion of good quality, delirium gone, temperature, 99°F.; pulse, 80. November 23d, had had a motion, apparently perfectly healthy, good appetite, cheerful, rational, greatly improved. Treatment from this date mainly dietetic, convalescence prompt, no sequelæ.

One year later, I treated Mrs. S. for same disease, convalescing on the fourteenth day. The average duration of the remaining eighteen cases was fourteen days to commencing convalescence. *Diarrhea was always promptly controlled by bichloride enema.* Have treated cases in consultation by same means, with same results. It may be urged that we do not reach the glands of Peyer and Brunner by this plan. This may be conceded, but we do reach the entire surface of the colon, rendering it aseptic and removing

all morbid accumulations. This prevents septic absorption and the morbid action of bacilli. The results are the most convincing evidence of the good accomplished.

I have extended this plan of treatment to most forms of zymotic disease affecting the intestines. In offensive diarrhea in adults and children, I have controlled discharges from infants almost choleraic in twelve hours by enemata 1–16000 in one-pint solutions. In cases of great irritability I have not hesitated to use chloroform carefully, to assist in controlling the child. There seems to be little need of exit tubes—the fluid is usually expelled with great force; if not, introduce them. I am treating cases of scarlet fever and diphtheria, after the acute stage has passed, by enemata, if diarrhea is present, in the belief that the colon harbors the microbe and ptomaines, and is largely chargeable with the lapses in fever and entero-colitis.

I would suggest intestinal flushing in ague, intermittents, and intestinal tuberculosis upon this theory, the only one in accord with scientific investigation and experiment. There can be no middle ground between the microbe and mystery. The invaluable labors and discoveries of bacteriologists demand of the profession from their vantage ground of opportunity corresponding zeal in the germicidal campaign. All the aids of chemistry, microscopy, hygiene and specifics are at our disposal. By modified atmospheres we can reach the ultimate air-cell, and anticipating, by early, intelligent diagnosis, organic lesions may perhaps contend successfully against the dreaded bacilli tuberculosa. Dr. Daland, of Philadelphia, who treated eleven cases of cholera at the Swinburne Island Hospital in September, 1892, in a paper read before the Philadelphia College of Surgeons, November 2, 1892, records eighty per cent. of recoveries by a treatment in which enemata containing one per cent. tannin were used with apparently specific results. A distinguished physician of Paris reports 100 cases of dysentery promptly cured by bichloride enemata. At the Military Hospital at Oran, fifty-three cases were treated with solution 1–5000 with prompt success (1891); Lemoine, of Paris (1890), fifty-four cases, 1–5000 bichloride, increasing later to 1–3000. I have not the original reports for reference, but presume they were rectal flushings where only six to eight ounces of fluid was used. I would think it hazardous to introduce two, three, or four-quart enemata 1–5000 or 1–3000. It is far better, in the present state of knowledge, to go slow. A single case of peritonitis from a rup

tured ulcer, subjected to enemata by pressure or absorption of bichloride, might condemn in the minds of many an almost specific treatment, properly employed. I may err in claiming priority in the use of bichloride enemata for dysentery and typhoid, but I can find no record prior to 1883 of a case thus treated. Of course, enemata for various purposes, and charged with various substances, have been used from time immemorial, but the use of bichloride for this purpose, in the manner now described and as a germicide, I think, may not unjustly be referred to the cases cited in this paper. Further experience may prove that boric acid, tannin, carbolic acid and other antiseptics are as efficient and safer; if so, they should be preferred.

I have attached importance to special action of the bichloride solution upon the mucous membranes, observing that it was more promptly rejected than water, and conclude that even in weak solutions it has temporarily an irritating cathartic effect thus favoring its prompt expulsion. This, too, may cause the removal of tenacious mucus, and bacilli which might otherwise invade the deeper structures. I have not favored frequent large enemata when the patient was doing well, fearing that it would unfavorably affect nutrition, nor do I ignore the fact that bacteriologists concede the harmlessness of many forms of bacteria, but the morbid processes induced by others cannot be disputed. It is to the latter, when evidently present, that the most directly antiseptic treatment should be applied. It may be too much to assert that the means suggested in this paper are at once safe and sure, but if its effect be to stimulate more thorough investigation and experiment ending in a "more excellent way," I shall not feel that they have been used in vain.

Clinical Reports.

REPORT OF A CASE OF ACUTE BILATERAL PSOITIS.[1]

By EUGENE A. SMITH, M. D.,

Professor of Anatomy, Medical Department of Niagara University, Buffalo, N. Y.

The following report of a case of acute inflammation of the psoas magnus muscles is of interest, because of the rarity of acute psoitis, and because the myositis occurred on both sides, and was not due to septic or traumatic causes.

1. Read before the Section on Medicine of the Buffalo Academy of Medicine, March 14, 1893.

Several muscular regions may be affected by myositis, the tongue, the psoas, the pectoral and abdominal muscles, and those of the thigh and calf; but the affection is usually a chronic form of inflammation extending by continuity and contiguity of connective tissue structure and secondary to tubercular, syphilitic, rheumatic, septicemia, diathetic conditions, or the presence of parasites. The type of such secondary forms of myositis is psoas abscess, resulting from infiltration and burrowing of pus in the sheath of the psoas magnus, following carious disease of the vertebræ.

Acute glossitis may be instanced as the type of acute myositis, and is more frequent than acute psoitis, because the tongue is more exposed to trauma and especially to injury with septic inoculation.

Suppuration in acute myositis is rare, but is more liable to occur in psoitis.[1] This statement should be modified, I think, to except myositis due to septic causes, which is usually a purulent inflammation.

In the case here reported, the psoitis resulted in resolution, but in the Buffalo Medical and Surgical Journal for December, 1881, Dr. Herman Mynter reported two cases of acute psoitis which terminated in suppuration, requiring operation and the evacuation of large quantities of pus.

On January 12, 1893, C. S., a well-built young man, 21 years old, came to the office; he gave a good family and personal history; he said he worked as a pipe-fitter, but felt obliged to stop working; for ten days he had been having severe pain in the right hypochondriac region, deep-seated, and made worse by a cough; he had lost slightly in weight; appetite not much impaired; tongue slightly furred; bowels regular. On examination, I found him tender to deep pressure in the epigastric and right and left lumbar regions. The pulse was tense and 104, temperature 101° F. On this occasion I prescribed rest, application of hot fomentations, and a mixture of simple elixir with pepsin, the diagnosis being in doubt. In the succeeding five days his temperature did not rise above 102°, and the pulse fell to eighty, becoming softer also under the influence of phenacetine. He perspired freely, daily, usually in the evening. The tenderness became more marked in the lumbar regions, and especially so upon grasping the region of the loin between the hands, one upon the lumbar region in front and the other behind the kidney. I found, also, that the lower limbs were flexed upon the body and rotated outward. The mother noticed that when on his feet he walked with the body bent well for-

1. See "An American Text-Book of Surgery."

ward at the hips. He complained also of pain running down the limbs, especially the left, locating painful points just below Poupart's ligament, and on the inside and outside of the thigh, as far as the knee. The urine was clear, high-colored, strongly acid, Sp. Gr. 1021, and showed no trace of albumen or sugar. Syphilis and lead poisoning excluded, the case presented some features of rheumatic, suppurative or tubercular trouble affecting the psoas muscles. On January 25, 1893, Dr. DeLancey Rochester saw the patient and the following additional history was obtained. Just after Christmas he had run some distance and then stood watching a large fire, and upon returning home felt chilled; shortly after, he began having the pain he first complained about. Upon a second visit Dr. Rochester advised an alkaline diuretic, which corrected the acidity of the urine, and in the next five days the fever ranged between 99° F. and 100° F. On January 31st, the temperature again ran up to 102½° F., and I found a soft mitral regurgitant murmur to account for it, while the lumbar tenderness was less marked and muscular contraction also. Changing the prescription to salicylate of sodium with bicarbonate of sodium, and keeping him at rest, were the features of the treatment until after a normal temperature for ten days. I considered it safe to allow him to walk. During the time when tubercular trouble with pus formation was a question of diagnosis, deep pressure over the psoas magnus muscles along the front of the spine was quite painful, also just behind the kidneys, between them and the spine.

In this case the diagnosis of acute psoitis, rheumatic in origin and affecting both muscles, was made after the endocarditis appeared. Before that, it was a question of differential diagnosis strongly pointing to suppurative psoitis of probable tubercular origin and calling for a radically different treatment.

LACERATION OF CERVIX, ENDOMETRITIS, LATERAL DISPLACEMENT OF UTERUS, PELVIC PERITONITIS FOLLOWING ABORTION.

By MATTHEW D. MANN, M. D., Buffalo, N. Y.

Lecture delivered at the Buffalo General Hospital, February 23, 1891, (Reported by A. L. BENEDICT, M. D.)

This patient is aged 35, has been married sixteen years, and has had two children, who are twelve and fourteen respectively. She had no trouble with the labors except that she says they were quite slow, the first being quicker than the second, which is rather the reverse of the rule. On closer questioning, however, she says that there were only about three hours of very hard pains—not a very long time. Six months after the second child was born, she became pregnant, but miscarried at

about the second month. She had little pain at the time of the miscarriage, but she was quite sick afterward for four weeks, having fever, and she says she was so low that she could not speak. She was in bed for six weeks, and was two or three months in regaining her strength. This is a common history, for a miscarriage even at the second month may do the greatest amount of harm. She has never been quite well since the miscarriage. Except specific infection, I know of nothing that causes so much pelvic trouble as miscarriages. This woman has been an invalid for twelve years, as the result of that trouble. She complains of backache, headache, pain in the left side and left eye—the pain occurs only occasionally in the right eye, and she cannot see so well with the left eye. She has to wear spectacles to read, and even with them, if she reads for a long time, her eyes trouble her. Her monthly periods cause her a good deal of pain and headache. The headache comes sometimes before, sometimes after, the periods. It is in the back of the head and neck, and it runs down the spine. This is characteristic, and it has been called the uterine headache. It is of the nature of sick headache or hemicrania, although there may be no nausea with it, being really a neuralgia, accompanied by vaso-motor disturbances. Whenever she stands and tries to work, there is a bearing down pain, which she feels especially in the left side. The bowels are costive and she has to take cathartics three or four times every week. The movements of the bowels are painful.

There are some very instructive points in the history of this case. One is the fact that it began with a miscarriage at the second month, and that the patient has never been a well woman since. Evidently at that time she had septicemia from retained bits of membrane, which decomposed in the uterus and set up a septic endometritis. This became, probably, a salpingitis—but, before I go on with these deductions, let me tell you what I find. I could not make an absolute diagnosis in such a case without an examination, and so I examined her before I brought her into the clinic-room. I found that the cervix is very badly lacerated. It is a kind of laceration that would be quite likely to escape notice, for there is a great hypertrophy of the anterior lip, a very slight crease between it and the posterior lip, which is atrophied so that it seems to run into the vaginal wall and it is hardly felt at first. The atrophy is not so marked as would at first appear, it being principally relative, owing to the hypertrophy of the anterior lip. The cervix is sensitive to the touch, and especially in the line of the scar.

The body of the uterus lies well over on the right side and it is very tender. When I squeeze it between my two hands, I can feel it slightly in the median line. The right side of the pelvis is per-

fectly empty, as far as the uterus is concerned, and it is entirely free from tenderness. This is the reason why I said the woman had a septic endometritis and salpingitis. You never find a uterus drawn down to one side except as the result of septic inflammation. The adhesions which formed in the more acute stage of the inflammation have contracted with age and have drawn the uterus over to the left side and they hold it there. You would not think the woman would suffer so much from the condition, but remember that the rectum runs on this side, and it is very closely connected with this broad ligament and tube. Almost always in the cases of laparatomy in which we have to raise the left ovary and tube, we pull up the sigmoid flexure with them, and almost all cases of salpingitis that have lasted for any length of time are associated with catarrh of the rectum, showing the extension of inflammation from the outside of the peritoneum over the intestine into the mucous membrane.

This woman is suffering from the effects of laceration of the cervix, due to displacement of the uterus, and pelvic peritonitis. It is altogether likely that the associated peritonitis and salpingitis are the worst part of the disease. They are what give her the most suffering, but they are kept up and she is made to suffer more by the laceration, because there is a large eroded surface, which is a constant source of irritation and which keeps up the congestion within the pelvis. Of course, the septic element has all gone, long ago. Probably the quickest way out of the whole trouble would be a laparatomy, but I do not suppose the patient would submit to that and I shall try a simpler method first. I shall propose to sew up the lacerated cervix and see if, by removing this source of irritation, the other trouble will not subside to a certain extent. It is probable that the uterus will become smaller and the old salpingitis and peritonitis will not give her so much trouble as they do now. This restoration of the cervix must be done very carefully. It would not do to drag down the uterus and break those adhesions, for there is danger of setting up a new attack of peritonitis, and the operation must be done with considerable care in order to prevent any possibility of infection. She has been sick so long that she will probably submit to this operation and it will afford her great relief. When there is not the imperative necessity of doing the graver operation first, I always prefer to do the simpler operation first, so as to afford the patient the opportunity of recuperating her strength as much as possible for the more severe ordeal.

Of course, if this woman's tubes are full of pus, it would be nonsense to operate on the cervix.

She is about to have her monthly sickness, and as soon as that is over she promises to come up to the hospital and enter the ward, and I will then operate upon her.

REPORT OF A CASE OF PRESSURE NEURITIS OF BOTH SCIATIC NERVES.[1]

By WILLIAM C. KRAUSS, M. D., Buffalo, N. Y.

Name, S. B.; male; married; occupation, teamster; age, 35; height, five feet eight inches; weight, 175 pounds; complexion, dark; hair, brown; constitution, strong, healthy, well nourished.

Antecedents.—No history of any hereditary disease of any kind could be elicited.

Early History.—He was always a strong healthy boy; was never sick, nor given to complaining.

Present History.—In July, 1891, he noticed for the first time that his right testicle was swollen. It was neither painful nor sensitive, and was hard and firm to the touch. Continually increasing in size until it became as large as a goose egg, he decided to consult a surgeon. Up to this time he was able to carry on his work without any appreciable difficulty, but by nightfall was very weak and exhausted. His friends noticed that he was emaciating, his color was changing, and that he lacked much of the vim and buoyancy which characterized him in former days.

On September 27, 1891, the right testicle was removed and submitted to the writer for examination. The wound healed in a short time, and he again resumed his work. After four days' trial he was obliged to discontinue on account of the severe pain in the right hip extending down the dorsum of the leg into the foot. Not being benefited by the family physician, the writer was called in consultation December 20, 1891. The patient was found lying on his abdomen, his face flushed and bathed in perspiration, sobbing and groaning, apparently in much pain. On examination the right buttock was greatly swollen, reddened, painful and sensitive on pressure. In fact, pain on pressure existed throughout the whole course of the sciatic nerve. On account of the pain the patient would not flex the right leg, but held it fixed in an extended posi-

1. Read before the Section on Medicine of the Buffalo Academy of Medicine, March 14, 1893.

tion. There was also present anesthesia about the anus, inner side of the thigh and leg, and outer side of the right buttock. The left leg was unaffected; motility, sensation and the reflexes were to all intents normal.

There was, furthermore, retention of urine with pyuria, although catheterization was performed twice daily. The appetite was poor, bowels constipated, and he complained of an insatiable thirst. The pulse ranged from 110 to 130, the temperature 103° to 104° F. The inguinal glands were not swollen.

The patient's condition continued in this manner with but little variation until January 3, 1892, when the left buttock began to swell, and in a few days the left sciatic nerve also became painful and tender on pressure. There existed then, at this time, a double sciatica; swelling, redness, and tenderness over both buttocks; anesthesia extending over a considerable portion of the dorsum of both extremities; retention of urine with pyuria, a temperature of 103° to 104° F., and a pulse varying from 110 to 130. My suspicions, which were aroused on the first visit to the patient, namely, that there was a recurrent growth in the pelvis, now seemed to be materialized, and proof was further adduced by finding a hard, dense nodular mass dorsad of the rectum. The patient slowly continued to sink; the buttocks were growing larger, until they seemed ready to burst; defecation became painful and irregular; and in the first week of March, 1892, there developed a pulmonary edema, death occurring on the fourteenth. The last rectal examination was made a few days prior to his death, and the whole pelvis was found filled with a hard, firm, unyielding mass. An autopsy was not permitted, and the diagnosis of the neoplasm must be made by inference. The enlarged scrotum, removed September 27, 1891, proved to be a fibro-sarcoma with predominance of small spindle cells, and hence we may assume that the mass in the pelvis was an osteo-sarcoma of the sacrum. The clinical history of the case bears out this diagnosis. Whether the sacral tumor was the result of metastases from the scrotal tumor, or *vice versa*, cannot, of course, be determined. The pulmonary affection may also have been the result of metastases, with edema as a complication.

Double or bilateral sciaticas are, as a rule, very rare, and when they do occur, do not depend, in the great majority of cases, upon any of the etiological factors which we are prone to associate with unilateral sciaticas. These latter are generally either of rheumatic, neuralgic, malarial, toxic, or traumatic origin, while the former,

in nearly all instances, are produced by pressure upon the lumbar enlargement of the nerve trunks by some neoplasm, hemorrhage, or inflammatory process in the sacrum or pelvis; consequently, the prognosis and treatment of the one differs materially from that of the other.

In the case just reported, the symptoms kept pace with the growth of the tumor. The right lateral mass of the sacrum was in all probability the primary seat of the growth in the pelvis. As it enlarged, it encroached upon the course of the right sacral plexus —especially the greater and small sciatic and pudic nerves,—then extending to the left side of the sacrum, it affected in like manner the nerve trunks of the left sacral plexus. No attempt was made to remove the mass from the pelvis. The treatment of the case was palliative throughout, the pain being controlled satisfactorily with galvanism and opium.

382 Virginia Street.

Progress in Medical Science.

CHEMISTRY.

By JOHN A. MILLER, Ph. D.

THE EXCRETION OF NITROGEN IN URINE.

Gumlich (*Zeit. Physiol. Chem.*, 17 ; *Jour. Chem. Soc.*, 62—1503). With different diets there were found :

1. A relatively large increase and diminution of urea with meat and vegetable food respectively.

2. A relative increase of ammonia with vegetable food. There was no change with animal food only.

3. A large relative diminution and increase of extractives with meat and vegetable diet respectively. A large number of morbid urines were also examined. In febrile disorders there was a relative lessening of urea, an increase of extractives and of ammonia. In diabetes, all cases showed a relatively high percentage of ammonia ; the amount of extractives and urea, as in healthy persons, varied with the diet. In cases of liver cirrhosis, severe anemia, and heart failure, there was relative lessening of urea, and increase of ammonia and extractives. In cases of kidney diseases, there was a lessening of total nitrogen, and an absolute and relative

increase of ammonia. In uremia the urea excreted varies but little, but the extractives almost disappear ; these substances appear to be retained in the tissues. The urea excreted in kidney disease is relatively great.

PTOMAINES OF INFECTIOUS DISEASES.

GRIFFITHS (*Compt. Rend.*, 114 ; *Jour. Chem. Soc.*, 62—1258.) (*Glanders.*)—The author has extracted from the urine of victims to glanders a ptomaine which forms white crystals of the composition $C_{15}\ H_{10}\ N_2\ O_6$. The base is poisonous, and when injected under the skin of a rabbit, produces abscesses at the point of injection, peculiar nodular lesions in the lungs, etc., and finally death.

Pneumonia.— The ptomaine from the urine of pneumonia patients forms white, microscopic needles, soluble in water, forming an alkaline solution. It forms a hydrochloride, platinochloride, and aurochloride, and its solutions give a white precipitate with phosphotungstic acid, a yellowish white precipitate with phoshyphen phomolybdic acid, a yellow precipitate with picric acid, and a brownish precipitate with Nessler's solution. Neither of these ptomaines is found in normal urine.

A NEW LEUCOMAINE.

GRIFFITHS (*Compt. Rend.*, 115 ; *Jour. Chem. Soc.*, 62—1367,) reports that a considerable quantity of the urine of an epileptic was made alkaline with sodium carbonate, shaken with half its volume of ether, the filtered ethereal extract agitated with aqueous tartaric acid, and the alkaloid precipitated from the acid solution by excess of sodium carbonate. It was then taken up with a fresh quantity of ether, and on evaporating, the latter was left as white, oblique prisms. The *leucomaine*, $C_{12}\ H_{16}\ N_5\ O_7$, thus obtained, is soluble in water, is feebly alkaline in reaction, and forms a crystalline by hydrochloride and amochloride. It is poisonous, producing trembling, intestinal, and urinary evacuations, dilatation of the pupils, convulsions, and death.

INFLUENCE OF HOT BATHS ON THE EXCRETION OF NITROGEN AND URIC ACID FROM THE HUMAN SYSTEM.

FORMANEK (*Jour. Chem. Soc.*, Vol. LXII.—1503). A single hot air or vapor bath does not cause any perceptible change in the excretion of nitrogens from the system, but if baths be taken on two

consecutive days, the excretion of nitrogen is found to increase on the second day, the increase continuing until the day following. The same thing holds also for the excretion of uric acid. A temporary raising of the temperature of the body is, apparently, therefore, of little effect in this respect, it being necessary to maintain the action for some time before change is noticed.

ACTION OF OXALIC ACID AND ITS DERIVATIVES ON THE ANIMAL ECONOMY.

KROHL (*Chem. Centr., I.*; *Jour. Chem. Soc.*, 62—1019.) Sodium oxalate, sodium malonate, ammonium oxalurate, and oxamide cause glycosuria, accompanied by an interruption of the oxidation processes, and carbon monoxide is formed, either in the free state or in combination. Since hydrogen cyanide (*prussic acid*) is oxidized to oxamide by *hydrogen peroxide*, experiments were made to see if it could be employed as an *antidote* in the case of prussic acid poisoning.

These experiments were successful, and *prussic acid*, in larger quantity than the fatal dose, was administered to dogs and cats, and its effects stayed by means of *hydrogen peroxide*. The experiment could be made daily for weeks together without permanently injuring the animal. Moreover, prussic acid could not be detected in the urine after application of hydrogen peroxide, whereas it is present in ordinary cases of prussic acid poisoning.

SURGERY.

By JOHN PARMENTER, M. D.

UNJUST CONDEMNATION OF CATGUT.

DR. LANPHEAR (*International Journal of Surgery*, January, 1893,) in an article upon the Unjust Condemnation of Catgut, after discussing some recent papers upon the unreliability (from the aseptic standpoint) of catgut, proceeds to give his own experiences with this material. To this end he has summarized the results of fifty-four operations of various kinds, in only three of which did suppuration occur. He concludes his paper as follows: "I am sure that any surgeon will be convinced of the superiority of catgut to all other suture materials in proper place, if perfect antiseptic precautions be taken and good gut be used. Carbolized catgut is

totally unreliable. I prepare my own catgut thus: Good, strong, gut, free from flaws, is washed in soap and water until all the "kink" is out; it is then dried with a towel, wound loosely around the fingers and dropped into a jar of sulphuric ether, C. P., in which it lies for forty-eight hours; it is then transferred to a jar containing oil of juniper, in which it floats from two days to a week, according to size; it is then wound—with fingers surgically clean—on spools and kept in alcohol ninety per cent. and oil of juniper ten per cent., carefully sealed. This is perfectly safe."

[In our experience, no mixture for the final preservation of catgut equals oil of juniper three parts, and alcohol one part, with the addition of hydro-naphthol five grains to the ounce of the mixture. The gut thus preserved is very flexible, does not become weakened in strength, and has a pleasant odor.—P.]

VACCINATION.

Cathell (*Maryland Medical Journal*, January 21, 1893,) suggests the following to prevent the very bad arm that often follows vaccination with bovine virus. Those in charge of the patient should try daily to raise the scab after the twenty-first day and remove it as soon as it is found to be detachable; next to mop and dry the sore, letting the air glaze the exposed surface before re-applying the clothes. When the edges are loose, but the crust is held by a strong and fleshy core at the center, the loosened margin should be cut away with scissors, including as much as possible of the central core itself. The sore is then dressed with a salve or dusted with aristol, iodoform, or europhen, if necessary. The writer thus concludes: "This not only prevents the excessively sore arm and chronic ulcer, with its burrowing, corroding, and tissue-absorbing pus, with the huge and unsightly keloidal cicatrix, but also secures the characteristic scar with its series of minute depressions or pits which unmistakably prove that it is the relic of a genuine Jennerian vesicle."

WOUNDS OF THE HEART.

Foy (*Lancet*, * * * ,) makes the following interesting observations upon wounds of the heart, a subject full of medico-legal importance: In considering the subject, I think the natural division of such wounds is—(1) Wounds of the ventricles, and (2) wounds of the auricles, these being subdivided into (*a*)

penetrating and (*b*) non-penetrating. Such an arrangement seems to have been followed by the older writers, commencing with M. Morand, whose work, Observation sur une Plaie du Cœur, was published in 1735. Garé noticed (Opera Omnia, liber viii.,) that wounds of the ventricle cause death slowly. The great significance of this is dealt with and clearly shown by Beck in his Jurisprudence. Baron Dupuytren gives Latour's case of "a ball extracted from the right ventricle near to the apex of the heart, and partly covered by the pericardium," six years after the injury was inflicted. William Harvey found a bullet in the heart of a stag. Even wounds that penetrate the auricle are not necessarily fatal. Dr. Grace, of Fife's case, lasted two days after puncture of the right auricle, and Surgeon Billy's case—wound of the right ventricle—survived five days, the longest period on record that I know of. Death may, however, very suddenly result from the wound, for, although the Duc de Berry survived his injury some hours, King Henry IV. died almost immediately from the stab of the assassin Ravaillac. A very slight puncture of the auricle may quickly cause death. Two such instances are on record: (1) The Sardinian nobleman's case, in 1728, at the Court of Victor Amadeus; and (2) that of Admiral Villeneuve, who on April 22, 1807, killed himself by piercing the right auricle of his heart with a fine needle. But, perhaps, the most remarkable case on record is that reported in the *Manitoba Lancet*, Vol. I., and copied by me in my article, The Literature of Punctured and Lacerated Wounds of the Heart, in which an attempt was made to remove by operation a needle from the interior of the right ventricle of a medical student. The operation was unsuccessful, but the manipulation of the heart displaced the needle from the position in which it was causing great distress, and for years the patient suffered no inconvenience."

HYDROGEN PEROXIDE IN THE TREATMENT OF CARBUNCLE.

Golden (*Medical Record*, February 25, 1893,) reports a case in which hydrogen dioxide was employed in the treatment of carbuncle. Parenchymatous injections (with an ordinary hypodermic syringe) of the peroxide (M. xxv., xxx.,) were made twice a day. In from six to eight hours new openings formed, giving exit to considerable quantities of liquified core and relieving tension. The writer thinks the new drain channels due to the evolution of gas (due to oxidation within the core) which was forced through

the points of least resistance. It is, in the writer's opinion, superior to carbolic acid and "a very useful agent in the treatment of this troublesome affection."

Abstracts.

Symptoms of Brain Injuries.—*Compression.*—(1.) Total insensibility. (2.) Respiration, stertorous and puffing. (3.) Pulse slow, full and labored. (4.) Special senses paralyzed. (5.) Pupils dilated or one dilated and the other contracted. (6.) Stomach inactive. Sphincters may be paralyzed. Bowels torpid. Bladder paralyzed. Retention appears gradually, and grows worse and worse.

Concussion.—(1.) Insensibility from which the patient can be partly aroused. (2.) Respiration feeble. (3.) Pulse weak and irregular. (4.) Special senses dulled. (5.) Pupils variable. Sensitive to light. Bowels relaxed. Sphincters not relaxed. Bladder can expel water. Comes instantaneously and passes off gradually.—*St. Louis Clinique.*

Advertising by Physicians.—The editor of the Cincinnati *Lancet-Clinic* discusses the pros and cons of this question at length, and concludes his consideration of the subject by the following advice:

"Leaving the newspaper out of consideration, a physician has two legitimate channels for advertising—first, the medical journal; and second, the reputation of knowing and attending to his business. In other words, ability to be a scientific physician is of more pecuniary value to a man than all the newspaper advertising he can possibly receive. 'The best advertisement for a physician is the confidence and respect of his brother-physicians.' This is a truism of great value and of far-reaching import. If all physicians appreciated the value of this confidence and respect, there would be fewer men anxious to appear in the public press."—*Medical Age.*

Poisoning by Antiseptics.—Prof. Albert, at a recent meeting of the Vienna Medical Society, suggested the possibility of surgeons suffering from chronic mercurial poisoning from the constant use of bichloride in surgical operations. Prof. Albert says that he for some time suffered from dyspepsia, for which he could assign no cause. An examination of his urine showed iodide of mercury in comparatively large quantities, considering the mode of its absorption. He has also lost three healthy teeth and noticed a softening of the finger-nails.—*Courier of Medicine.*

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THE NEW NATIONAL QUARANTINE LAW.

After much debate and delay in the lower house of Congress, the calendar bill No. 1264, entitled, An Act Granting Additional Quarantine Powers and Imposing Additional Duties Upon the Marine Hospital Service, finally passed both houses and received the sanction of the President. It is now, therefore, a law, and succeeds the old National Board of Health law which was passed in 1879. The importance of this matter, and, in view of the probability of the need of this measure during the coming months, warrants a careful review of the provisions of the bill.

The law is divided into nine sections.

Section one makes it unlawful for any ship to enter any port of the United States, except in accordance with the provisions of this act.

Section two requires every vessel clearing for any port in the United States to obtain from the Consular Service of the United States, at port of departure, a bill of health setting forth the sanitary history and conditions of such vessel, and that it has complied with the rules and regulations prescribed for securing the best sanitary condition of said vessel, its cargo, passengers, and crew. The penalty imposed for non-compliance of this provision is not more than $5,000.

Section three directs the Supervising Surgeon-General of the Marine Hospital Service to examine the quarantine regulations of all State and municipal boards of health and to coöperate with them in enforcing such regulations. Where such regulations do not exist, or where additional rules are necessary to prevent the introduction of infectious diseases into the United States, or from one State into another, the Secretary of the Treasury is empowered

to draft such regulations, which are to operate uniformly, and in no manner to discriminate against any port or place.

Section four confers upon the Surgeon-General of the Marine Hospital Service, under the direction of the Secretary of the Treasury, the performance of all duties in respect to quarantine and quarantine regulations, to obtain information regarding the spread of infectious diseases, and to publish and transmit to collectors of customs, health officers, etc., weekly abstracts of the consular sanitary reports.

Section five provides that all ships bound for the United States shall take such steps as will place the crew and cargo in the best sanitary condition possible before a bill of health shall be granted them; and, further, that in case of an outbreak of cholera or other contagious or infectious diseases, such ship shall be detained at quarantine for disinfection and isolation.

Section six provides that in case an infected vessel enters a port not provided with the proper facilities for treatment of the same, said vessel must seek the nearest national quarantine station where the necessary accommodations and appliances are provided for disinfection and treatment.

Section seven gives the President power to prohibit the introduction of persons and cargo coming from an infected port whenever there is serious danger of the introduction of cholera or other infectious disease into the United States.

Section eight authorizes the payment of a reasonable sum to the State authorities for all buildings and apparatus surrendered to the United States for quarantine purposes.

Section nine repeals the old National Board of Health law and directs all property belonging to this board to be placed under the control of the Secretary of the Treasury.

The wisdom of passing this bill cannot be questioned and a pity it is that such a law has been so long delayed. The experience of the New York Health Department during the past year demonstrated most vividly the absolute need of a national quarantine law, and, no doubt, had much to do in hastening the enactment of such a measure. Although the Secretary of the Treasury is nominally the absolute head, the Surgeon-General of the Marine Hospital Service is the virtual head of this important measure and so confers upon this department the responsibility which it alone is able to master.

One of the most important provisions is that giving the Presi-

dent power to suspend emigration when the occasion requires. It is to be hoped that this necessity will not arise—especially during the coming summer months.

On the whole, the measure gives confidence and assurance that a vigilant watch will be kept to prevent the entrance into the United States of infectious and contagious diseases.

TOPICS OF THE MONTH.

One of the burning topics of the month in political and medical circles has been whether Dr. Bergtold would be appointed bacteriologist to the Health Department. At the last meeting of the Section of Medicine of the Buffalo Academy of Medicine, March 14, 1893, the following resolution was unanimously adopted:

Resolved, That the Section on Medicine of the Buffalo Academy of Medicine hereby heartily approves the action of the Health Commissioner in his efforts to have a bacteriologist appointed by the city, considering as we do that in the present state of the medical science an expert is practically a necessity in properly guarding the public health.

The tenement-house question was also taken up, and a discussion arose on the advisability of adopting a resolution supporting the proposed ordinances respecting the matter. It was considered, however, that a better plan would be to appoint a committee to represent the Society at the meeting which was to have been held the following day, but which was postponed.

Drs. Lothrop, Pryor, and Rochester were placed on the committee.

At the commencement exercises of the Medical and Dental Department of the University of Tennessee, held in Nashville, Thursday evening, February 23d, the largest class was graduated that ever went forth from this institution. It was not only a large, but it was an especially bright, class, numbering among its members some of the most prominent young men of the South. Especially do we note that the first honors, including the Paul F. Eve faculty medal, was won by W. D. Haggard, Jr., son of Professor Haggard, in the University. It must be particularly gratifying both to father and son, when it is considered that young Dr. Haggard was the youngest member of the class, and has but just attained his majority. We feel assured that the honors have been worthily bestowed, and that in the future, should his life be spared,

the profession of medicine will be adorned by the achievements of Dr. William D. Haggard, Jr.

The Buffalo University Medical College dedicated its new building on Monday evening, March 6, 1893, in the presence of a large assemblage especially invited for the occasion. An historical address was made by Dr. Charles Cary, Professor of Materia Medica and Therapeutics, and the Vice-Chancellor, the Hon. James O. Putnam, delivered a speech preliminary to the delivery of Dr. Cary's address. After the exercises were concluded, the entire building was thrown open to the inspection of the guests, which is everywhere conceded to be one of the best medical college buildings in the country. Modern architecture has been invoked with reference to convenience as well as comeliness, and all the requisites of heating, lighting, ventilating, and plumbing, have been especially secured. In another department of the Journal we publish Mr. Putnam's and Dr. Cary's addresses, which will be read with great interest by physicians and others interested in the prosperity of the school.

The Riverside Hospital for Women, 2393 Niagara street, has a house staff composed of Dr. Lillian C. Randall and Dr. Mary S. Green, and is designed for the medical and surgical treatment of women. Physicians can find a pleasant home for patients upon whom they wish to operate. The consulting staff is Dr. Crockett, Dr. Putnam, Dr. Snow, Dr. Thompson, and Dr. Townsend. Terms will be furnished by Dr. Randall or Dr. Green.

The January number of *The Bacteriological World and Modern Medicine* has donned a new dress, and made itself in other respects more attractive than ever. Drs. Kellogg and Paquin know evidently how to cater to the physician's wants, and have succeeded in making theirs, truly, a journal of "modern medicine."

The New York *Polyclinic*, edited by the faculty of the New York Polyclinic School and Hospital, has made its appearance. It is a handsome journal, well edited, and, like its contemporary, the *Post-Graduate*, is filled with interesting and instructive matter. We see no reason why it should not receive the same hearty support as does the *Post-Graduate*.

Personal.

Dr. W. S. Renner has returned from his European trip.

Dr. Charles Cary is off for Europe for a few months' recreation.

Dr. Andrews, of the Buffalo State Hospital, is sojourning in California.

Dr. Cyrus Siegfried, of Allen street, has removed to 149 Franklin street.

Dr. Pettus, of the Marine Hospital staff, has been transferred to Southampton, Eng.

Passed-Assistant Surgeon Bratton, of Chicago, will succeed Dr. Pettus as Marine Hospital Surgeon in this city.

The many admirers of Dr. Robert Bartholow, of Philadelphia, will be pleased to learn of his ultimate recovery, and that he has again resumed his practice.

Obituary.

Dr. Laurence Johnson died in New York, March 18, 1893, after a short illness from pneumonia. He was born June 7, 1845, in South Butler, Wayne county, N. Y., and in 1863 enlisted as a private in the Ninth New York Heavy Artillery. In 1864, he was appointed First Lieutenant and was attached to the Eighth United States Colored Artillery at Paducah, Ky., and later on the Potomac. Following the close of the war he studied medicine and received his degree from Bellevue Hospital Medical College in 1868. He was President of the Medical Society of the County of New York, a member of the board of managers of the New York Physicians' Mutual Aid Association, of the New York Society for the Relief of Widows and Orphans of Medical Men, of the Medical Society of the State of New York, and of the New York Academy of Medicine, of which he was at one time librarian, and at the time of his death a trustee. He was also a member of the Academy of Sciences and of the Torrey Botanical Club, the Military Order of the Loyal

Legion, of the Grand Army of the Republic, etc. He had for several years been lecturer on Medical Botany and Clinical Medicine in the University of the City of New York, and visiting physician to the Randall's Island Hospital, as well as having connection with the medical staff of other public hospitals and dispensaries. In 1880–90, he was one of the "Committee of Revision and Publication of the Pharmacopeia of the United States of America," and was the author of works on medical formulas and on the medical botany of North America.

Society Meetings.

The nineteenth annual meeting of the American Neurological Association will be held in Saratoga, N. Y., July 25, 26, and 27, 1893.

The next meeting of the Buffalo Microscopical Club occurs Monday, April 10, 1893, 8.15 P. M., at the Buffalo Library building. Professor W. W. Rowlee, of Cornell University, will read a paper on A Study in the Minute Structure of the Organs of Aquatic Plants.

The forty-fourth annual session of the Medical Association of Georgia will be held in Americus on April 19, 20 and 21st. President, A. A. Smith, M. D., Hawkinsville; Vice-Presidents, Geo. J. Grimes, M. D., Columbus, and Robt. H. Taylor, M. D., Griffin; Secretary, Dan. H. Howell, M. D., Atlanta; Treasurer, E. C. Goodrich, M. D., Augusta.

The American Association of Obstetricians and Gynecologists will hold its sixth annual meeting in Detroit, Mich., Thursday, Friday, and Saturday, June 1, 2, and 3, 1893, under the Presidency of Dr. Lewis S. McMurtry, of Louisville, Ky.

It is expected that this will be one of the most interesting meetings in the history of the Association, and all members of the profession interested are cordially invited to attend.

By Order of the Executive Council.

The French Society of Electropathy is about to manage a yearly exhibition, which will take place the Friday and Saturday of Easter week in 1893.

This exhibition will be held in the "Laboratoire de physique de la Faculté de Médecine" in Paris, and will include the instruments employed in electropathy, as well as demonstrations concerning electric methods, drawings, etc.

The organizing committee is represented by Prof. Gariel, Drs. Tripier, Gautier, Vogt, and M. Gaiffe, constructor.

Doctors and constructors are invited to call from this day upon Dr. Vogt, 28 rue Saint-Lazare, Paris, for information.

American Surgical Association.—The preliminary programme for the meeting to be held at Buffalo, N. Y., May 30, 31, and June 1, 1893, is a list of the subjects which have been selected for special consideration at the next meeting, with the names of the Fellows who have promised to prepare the opening papers upon the several subjects, and of those who are expected to open and take part in the discussions:

President's Address.

The Modern Treatment of Compound Fractures, by Dr. Nicholas Senn, Chicago; discussion by Drs. Roswell Park and F. S. Dennis.

Hypertrophies and Degenerations of Cicatrices and Cicatricial Tissue, by Dr. J. Collins Warren, Boston; discussion by Drs. C. H. Mastin, G. R. Fowler, and W. H. Carmalt.

Surgery of the Gall Bladder, by Dr. M. H. Richardson, Boston; discussion by Drs. J. Ewing Mears, A. Vander Veer, W. H. Carmalt, and Theo. A. McGraw.

Surgery of the Rectum, by Dr. A. G. Gerster, New York; discussion by Drs. L. S. Pilcher, H. H. Mudd, and L. McLane Tiffany.

Surgical Treatment of Cervical, Thoracic, and Abdomina Aneurism, by Dr. C. B. Nancrede, Ann Arbor; discussion by

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Surgery of the Prostate, by Dr. J. William White, Philadelphia; discussion by Drs. Hunter McGuire, T. F. Prewitt, R. F. Weir, and F. H. Gerrish.

Treatment of Carbuncle, by Dr. F. Lange, New York; discussion by Drs. Robert Abbe, J. B. Roberts, and J. S. Wight.

In addition to the above specially-selected subjects, the following papers have been offered:

Unreduced Dislocations of the Astragalus, by Dr. Stephen Smith, New York.

Fellows who propose to present volunteer papers are requested to send to either of the undersigned the titles of their proposed

papers as soon as possible, in order that they may be properly classified and arranged for the final programme.

Fellows are also requested to notify the Chairman of the Committee whether they will take part in the discussion upon any of the special subjects given in the above list.

NICHOLAS SENN, *President*,
J. R. WEIST, *Secretary*,
J. EWING MEARS, *Recorder*,
F. S. DENNIS,
JOHN S. BILLINGS,
Business Committee.
R. PARK,
Chairman Com. of Arrangements.

PAN-AMERICAN MEDICAL CONGRESS.—*Section on Hygiene, Climatology and Demography.*—Persons proposing to present papers before this Section are requested to communicate with either of the undersigned *immediately*, that titles of subjects may be properly classified for the programme of the proceedings of the Congress. The only limitation as to subject matter is that it shall have a sanitary, climatological, or statistical bearing. Members of the Section on State Medicine of the American Medical Association, the American Public Health Association, the American Climatological Association, the American Academy of Medicine, and of State and Municipal Boards of Health are especially invited to contribute the results of their several experiences. The languages of the Congress being Spanish, Portuguese, French, and English, papers may be presented in either, to be translated in the others, for which reason their text should be in the hands of the secretaries at the earliest possible date.

ALBERT L. GIHON, M. D., *President*,
145 East 21st street, New York City.
PEDRO JOSE SALICRUP, M. D., *Secretary* (Spanish),
129 East 17th street, New York City.
PETER H. BRYCE, M. D., *Secretary* (English),
Toronto, Canada.

THE Section on Laryngology and Rhinology of the Pan-American Medical Congress is now thoroughly organized, with secretaries in all the countries of South America as well as in the United States and Canada.

The President, Dr. E. Fletcher Ingals, of Chicago, is making a thorough canvass to secure a large number of good papers for the Section, and aided as he will be by the able Secretaries, Drs. Murray and y Alonso, and the corps of Honorary Presidents, he feels assured of the success of this department of the Congress. The Honorary Presidents are:

Drs. Harrison Allen, Philadelphia; Franke H. Bosworth, New York; J. Solis Cohen, Philadelphia; D. Bryson Delavan, New York; J. F. Dixon, Portland, Ore.; Stephen Dodge, Halifax, N. S.; W. C. Glasgow, St. Louis; Frederick I. Knight, Boston; Geo. M. Lefferts, New York; Alvaro Ledan, Villa Clara, Cuba; John N. Mackenzie, Baltimore; David Matto, Lima, Peru; P. Emelio Petit, Santiago, Chili; John O. Roe, Rochester, N. Y.; Federico Semeleder, City of Mexico, Mex.; Chas. E. Sajous, Paris, France.

The Secretaries for foreign countries are: Drs. Ovejero, (Piedad 22,) Buenos Ayres, Argentine Republic; H. Guedes de Mello, Rio de Janeiro, U. S. of Brazil; G. W. Major, Montreal, Canada; Felix Campuzano, (Virtudes 33,) Havana, Cuba; Luis Fonnegra, (Calle 10, Numero 263,) Bogota, Republic of Columbia; Fabricio Uribe, Guatemala City, Guatemala; Henri Goulden McGrew, Honolulu, Hawaii; Angel Gavino, (Cocheros 15,) City of Mexico, Mex.; J. Midence, Leon, Nicaragua; Eugenios Cassanello, (San José 119,) Montevideo, Uruguay; Napoleon F. Cordero, Merida, Venezuela.

All physicians interested in this Section are requested to correspond with the secretaries for the United States.

Dr. J. Maron y Alonso, (Spanish speaking), Las Vegas, N. M.

Dr. T. Morris Murray, (English speaking), Washington, D. C.

The Section of Gynecology and Abdominal Surgery of the Pan-American Medical Congress of 1893, has been completely organized, with the following list of officers:

Executive President, Dr. William Warren Potter, 284 Franklin street, Buffalo, N. Y.; English-speaking Secretary, Dr. Brooks H. Wells, 71 W. Forty-fifth street, New York; Spanish-speaking Secretary, Dr. E. W. Cushing, 168 Newbury street, Boston, Mass., together with the following list of honorary presidents:

Dr. Rafael Benavides, Lima, Peru; Dr. Young H. Bond, St. Louis; Dr. Domingo F. Cubas, Havana, Cuba; Dr. Clinton Cush-

ing, San Francisco; Dr. Wm. E. B. Davis, Birmingham, Ala.; Dr. Christian Fenger, Chicago, Ill.; Dr. Frank P. Foster, New York; Dr. Thos. H. Hawkins, Denver; Dr. Wm. D. Haggard, Nashville; Dr. Edward W. Jenks, Detroit; Dr. Joseph Taber Johnson, Washington; Dr. Ernst S. Lewis, New Orleans; Dr. Andres Lopez Martinez, Tegucigalpa, Honduras; Dr. Richard B. Maury, Memphis; Dr. Thomas E. McArdle, Washington; Dr. Lewis S. McMurtry, Louisville; Dr. Roberto Moericke, Santiago, Chile; Dr. Robt. T. Morris, New York City; Dr. Paul F. Mundé, New York; Dr. Joseph Price, Philadelphia; Dr. Charles A. L. Reed, Cincinnati; Dr. John C. Reeve, Dayton, O.; Dr. José Manuel de los Rios, Caracas, Venezuela; Dr. George H. Rohé, Catonsville, Md.; Dr. James F. W. Ross, Toronto, Canada; Dr. Albert Vander Veer, Albany; Dr. Milo B. Ward, Topeka; Dr. Henry P. C. Wilson, Baltimore; Dr. Nicolás San Juan, City of Mexico, Mexico.

The following is a list of the Advisory Council:

Dr. A. H. Cordier, Kansas City, Mo.; Dr. J. H. Carstens, Detroit, Mich.; Dr. Edwin Walker, Evansville, Ind.; Dr. Rufus B. Hall, Cincinnati; Dr. X. O. Werder, Pittsburg, Pa.; Dr. A. F. Currier, New York, N. Y.; Dr. Robert T. Morris, New York, N. Y.; Dr. F. H. Davenport, Boston, Mass.; Dr. Ely Van de Warker, Syracuse, N. Y.; Dr. George R. Dean, Spartanburg, S. C.; Dr. George C. Jarvis, Hartford, Conn.; Dr. Henry T. Byford, Chicago; Dr. George F. French, Minneapolis, Minn.; Dr. J. F. Y. Paine, Galveston, Texas.

It is desirable that all those who propose to read papers before this Section should nominate their titles to the secretaries above named at an early day, as the regulations require that abstracts of such papers shall be in the hands of the Secretary-General not later than July 10, 1893.

All members of the profession of medicine interested are earnestly and cordially invited to attend the meetings of the section to be held in Washington, Tuesday, Wednesday, Thursday, and Friday, September 5, 6, 7, and 8, 1893.

By Order of the Executive President.

Brooks H. Wells, *English-speaking Secretary.*

E. W. Cushing, *Spanish-speaking Secretary.*

Academy of Medicine Notes.

Dr. Thomas Lothrop has been unanimously nominated for president, Dr. F. W. Bartlett for trustee, and Dr. E. A. Smith for treasurer, of the Buffalo Academy of Medicine. The election occurs at the annual meeting in June.

The following physicians were elected Fellows of the Academy: Dr. R. R. Ross, Dr. R. Langford Patteson, Dr. C. J. Patterson, Dr. James Stoddart, Dr. Ward B. Whitcomb, (Batavia, N. Y.,) Dr. E. J. Meyer, Dr. L. Denton, and Dr. M. Denton.

The council having wisely decided to select new quarters for the Academy has secured pleasant apartments in the New Market Arcade Building, which will be ready for occupancy May 1st.

The last (March) meeting was one of the best attended meetings of the Academy. We hope to see every chair filled when the Academy is installed in its new home.

A subscription list was started at the meeting held March 21, 1893. Over $200 was subscribed towards furnishing the new rooms. Members who were not present at that meeting may leave their subscriptions with any of the council.

The first amendment to the constitution was adopted at this meeting and reads as follows: Any member of the Academy, in good standing, may be admitted to life membership on payment of $100.

The next stated meeting of the Academy will be held June 27, 1893. The programme will be in charge of the section on Obstetrics and Gynecology. The election of officers and the annual meeting will also be held in June.

At the next meeting of the Section on Surgery of the Buffalo Academy of Medicine to be held April 4, 1893, the following programme will be carried out: Fractures and Competent Surgical Treatment, H. Mynter, M. D.; Legal Aspects and Responsibilities, Mr. W. L. Marcy.

Cincinnati physicians are agitating the question of consolidation of the various medical societies into an Academy with sections. The Buffalo experiment is proving quite successful and we can recommend the plan to our Cincinnati brethren.

College Notes.

Term examinations at the Buffalo medical colleges begin the latter part of the month.

The medical department of Niagara University will hold its commencement Thursday, May 4, 1893. The programme outlined will consist of the meeting of the Alumni Association in the college building at ten A.M., commencement exercises at the Star Theater in the evening at eight P. M. The Rev. Mr. Slicer will deliver the address to the graduates, and Dr. Thomas Lothrop will deliver the valedictory address. This year closes the first decennial of this school. Physicians are cordially invited to attend these exercises.

The commencement exercises of the University of Buffalo will be held at Music Hall, Tuesday evening, May 2, 1893. Diplomas will be granted to the graduates in the departments of medicine, pharmacy, and dentistry. The address of the evening will be delivered by Dr. Paul F. Mundé, of New York.

The Alumni Association of the medical department will meet in the morning, in Alumni Hall, for a business session, and in the afternoon scientific papers will be presented by Drs. C. C. Frederick, E. Clark, and others.

Book Reviews.

A Manual of Medical Jurisprudence, with Special Reference to Diseases and Injuries of the Nervous System. By Allan McLane Hamilton, M. D., one of the Consulting Physicians to the Insane Asylums of New York City, etc., etc., with illustrations. New York: E. B. Treat, 5 Cooper Union. Chicago: 199 Clark street. 1890. Pp. 390. Price, $2.75.

As an authority on diseases of the nervous system and medical jurisprudence, Dr. Hamilton is conceded to be at the head, and hence his views on medico-legal topics must carry weight and conviction. In questions bearing on medico-legal cases, some authority

must be followed, especially when the plea of insanity is entered by the defendant. Perhaps no branch of medicine calls forth more judgment and precision than those in which a human life is at stake, and hence the need of every physician to be more or less informed on medical jurisprudence. For such a treatise we can cheerfully recommend Allan McLane Hamilton's. The author divides his book into eight chapters, treating of Insanity, Insanity in its Medico-Legal Relations, Hysteroid Conditions and Feigned Diseases, Epilepsy, Alcoholism, Suicide, Cranial Injuries, and Spinal Injuries. Under Insanity the writer treats of questions bearing on the characteristics of the insane, their cunning, insane inspirations, relations of criminal acts to sleep, somnambulism and epilepsy, hereditary influence, etc. Under Chapter II. is reviewed briefly the Guiteau case; he also discusses the border-land of insanity, duties of the expert, testamentary capacity, and quotes in full the wills of certain individuals, made while they were suffering from insane ideas, etc., etc. We expected the author would give some extended information on the responsibility of the hysterical patient, but remarks only that it is far from easy and then quotes Du Saulle. This is one of the most important medico-legal topics and should be carefully studied. The responsibility of the epileptic is about settled, and the courts recognize that a criminal act during an attack of epilepsy is excusable. The author further ignores the question of responsibility of the hypnotized individual—in fact, no mention is made of hypnotism in its relation to crime. On the subject of spinal and cerebral concussion, with following suits for damages, the author takes middle ground, neither calling these cases all frauds, nor permitting simulation to be recognized as disease. To speak of all the interesting questions that the author discusses would be to reproduce the whole work. These questions are so interesting that it is difficult to lay the book aside before it has been carefully read.

The typography is similar to the other numbers of Treat's medical classics, combining beauty, strength and durability. W. C. K.

Alcoholism and its Treatment. By J. E. Usher, M. D., Fellow of the Royal Geographical Society of London, formerly Surgeon Superintendent and Medical Officer of Health to the Queensland Government. 12mo, pp. 151, cloth. New York: G. P. Putnam's Sons. London: Bailbére, Tindall & Cox. 1892.

This little book is written from the standpoint of one who recognizes that alcoholism is in some people a disease, that in

others it induces disease, and that in others it is a vicious habit. In establishing alcoholism as a disease, it is not intended that any forms other than those of a chronic nature, or when a known heredity exists, or in which fixed mental change (insanity) is present, can be allowed in palliation of any offense.

In three chapters he discusses pathological changes in alcoholism, the nature of the inherited, the acquired, and the infantile forms.

The next four chapters consider insanity alcoholism, alcoholic trance and crime, cerebral automatism or trance, alcoholism and its legal relations.

These chapters are exceedingly well written and full of sound and valuable information. The chapter which considers the legal status of drunkards is a resumé of the conditions in England and New York. He concludes that it will be observed that the law has not yet judicially recognized inebriety as a disease.

The remainder of the book is given to the treatment of alcoholism. In this is included the following prescriptions; the first is the alleged bichloride of gold remedy sold at Dwight, which, on being analyzed, gives the following result:

R—Ammon. muriat..... .....gr. i.
Aloin. .....gr. ii.
Tinct. cinch. co. .....℥iii.
Aq. .....℥i.
M. S. Teaspoonful six times daily.

The hypodermic injection used at Dwight shows an analysis of—

R—Strych. sulph. .....gr. ss.
Atropia. .....gr. ¼.
Acid borac. .....gr. xv.
Aq. .....℥ iv.

J. W. P.

THE READY-REFERENCE HAND-BOOK OF DISEASES OF THE SKIN. By GEORGE THOMAS JACKSON, M. D. (Col.), Chief of Clinic and Instructor in Dermatology, College of Physicians, New York; Professor of Dermatology in Woman's Medical College of the New York Infirmary; Consulting Dermatologist to the Presbyterian Hospital; Visiting Dermatologist to the Randall's Island Hospitals; Member of the American Dermatological Society; Fellow of the New York Academy of Medicine, etc.

The object of this Ready-Reference Hand-book, as the author sets forth in his preface, is "to present the art of dermatology as it now exists." This has been well done, the compendium being

up to date, full of scientific accuracy, and conveniently arranged for the practical adaptations to the wants of the dermatological student.

The diseases follow in alphabetical order, their salient features clearly described, and their diagnosis and treatment fully considered. The concluding portion of the work consists of an appendix containing additional formulæ, wherein the grains, drachms, and ounces are translated into their precise equivalents in grammes.

The style and diction are admirable, and we cannot too highly commend this compact treatise as a faithful presentation of the present state of our knowledge of dermatology. E. W.

The Anatomy of the Peritoneum. By Franklin Dexter, M. D., Assistant Demonstrator of Anatomy, College of Physicians and Surgeons (Columbia University), New York. With thirty-eight illustrations ; 12mo, pp. 86. New York : D. Appleton & Co. 1892.

Both teacher and student will unite in thanking the author for giving them such a clear and comprehensive description of the peritoneum. The subject is one with which every teacher of anatomy has experienced difficulty when trying to explain it to the student, and this little book cannot fail to help him greatly in his task.

As the author frankly states, while he cannot at all times explain why anatomical conditions occur, in some cases, we can understand how such conditions are produced, and such knowledge is better than that which is purely a matter of memory. The keynote of this book is the study of the development of the abdominal organs, and no one, after reading what the author has to say along these lines, can fail to appreciate the value of the method.

The author begins with the peritoneum in its most elementary form, and, step by step, with text and accompanying illustration, he traces its development from the time when the alimentary canal is a simple tube up to the more complex arrangement of the human adult. The book cannot easily be reviewed, inasmuch as much of its clearness depends upon the plates, and these must, of course, be seen. The plates are exceedingly distinct and simple, and are the great feature of the book. The text makes an admirable supplement and aids the interpretation of the plates.

There are few things to criticize. One or two typographical errors and the retaining of the diphthong in the word peritoneum are about the only blemishes to be found.

The little volume is very dainty in its make-up, and suggests that the time is coming when a medical book need not necessarily look like one, and that hard, dry science may have as attractive clothing as poetry or art. J. P.

A Manual of Clinical Ophthalmology, by Howard F. Hansell, M. D., Lecturer on Ophthalmology in the Jefferson Medical College; Chief Clinical Assistant in the Eye Department, Jefferson Medical College Hospital; Member of American Ophthalmological Society; Fellow of the College of Physicians, Philadelphia, etc., and James H. Bell, lately Demonstrator of Anatomy in Jefferson Medical College; Member Ophthalmological Staff, Jefferson Medical College Hospital; Ophthalmic Surgeon to Southwestern Hospital and Dispensary, etc. With 120 illustrations. Pp. 231. Philadelphia: P. Blakiston, Son & Co. 1892. Price, $1.75.

This is a manual designed to give "a brief review of the anatomy, physiology, refraction, and common diseases of the eye." The authors have written it for "the undergraduate and general practitioner of medicine." The subjects are presented in very clear and concise style, and so far as treated, are brought fully up to date. The scope of the work forbids that detail which is often desirable, and excludes some topics that are of very little practical importance to the student or general practitioner. Very few errors are noticed, the most apparent one being the misnaming of Priestley Smith's perimeter.

The authors have done their work well, and have produced a book that can be sincerely recommended to the medical student who needs a concise and compendious presentation of the essentials of ophthalmology. A. A. H.

Manual of Skin Diseases with Special Reference to Diagnosis and Treatment, for Students and General Practitioners. By W. A. Hardaway, M. D., Professor of Skin Diseases in the Missouri Medical College, and in the St. Louis Post-Graduate School of Medicine; Dermatologist to the Augusta Free Hospital for Children; Consulting Dermatologist to the City and Female Hospitals; ex-President of the American Dermatological Association.

This little manual is divided into three parts, the first portion being devoted to a general introduction on Symptomatology, Etiology, Diagnosis, and Treatment, which is brief, practically complete, and clearly stated.

The second part considers the clinical characters of the various skin affections in a most satisfactory manner, special stress being placed upon diagnosis and treatment.

It concludes with an appendix of special formulæ selected by the author, and a diet table. E. W.

Formulaire des Medicaments Nouveau et des Medications Nouvelles pour 1893, par H. Bocquillon-Limousin, Pharmacien de 1re Classe, avec une introduction par H. Huchard, médecin de l'hôpital Bichat. 1 vol. in-18 de 320 pp., cart. 3 fr. Librairie J.-B. Billière et fils 19, rue Hautefeuille (près du boulevard Saint-Germain), à Paris.

A large number of new remedies have of late been introduced into therapeutics. The indications for their use, their origin, and mode of employment are scattered through the medical literature of the world. The object of this little work has been to collect and condense these reports and to present them to the profession in such a way that at a glance he can find what would otherwise consume valuable time.

Among the 500 important articles which it contains may be mentioned antipyrine, exalgine, ichthyol, menthol, naphthaline, salol, salophen, spermine, sulfonal, analgene, asaprol, strontium, etc., enough to show that the very latest additions to our therapeutic knowledge have been incorporated.

The low price (sixty cents) makes it accessible to the mass of practising physicians, who will find it many times worth its intrinsic value. W. C. K.

Public Ledger Almanac, 1893.—Geo. W. Childs, Publisher, Chestnut street, Philadelphia.

It is our pleasure to again notice this valuable almanac. The one for last year seemed very near perfection, but this, if anything, is an improvement on the last one. It contains a record of the important events of this year, also a list of the members of Congress, and of the Diplomatic corps, and many other interesting items. This is the twenty-fourth year of its publication, and as the *Ledger* Building was burned on December 5, 1892, it was published under many difficulties.

BOOKS RECEIVED.

Proceedings of the Philadelphia County Medical Society. Volume XIII. Session of 1892. Louis H. Adler, Jr., M. D., Editor. Philadelphia. Printed for the Society. 1893.

Human Anatomy. A Complete Systematic Treatise by Various Authors, including a Special Section on Surgical and Topographical Anatomy. Edited by Henry Morris, M. A., and B. M., Lond.. Surgeon to, and Lecturer on Surgery, formerly Lecturer on Anatomy at the Middlesex Hospital, late Examiner in Anatomy in the University of

Burham, and for the Royal College of Physicians on the Conjoint Board. Illustrated by 791 woodcuts, 214 of which are printed in colors from drawings made expressly for this work by special artists. Large octavo, pp. xxxii.—1286. Price, $7.50. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1893.

A Year-Book of Treatment for 1893, a critical review for practitioners of medicine and surgery. Contributors: Barclay J. Baron, M. B.; Stanley Boyd, B. S., F. R. C. S.; J. Mitchell Bruce, M. D.; Alfred Cooper, F. R. C. S.; W. H. Corfield, M. D.; George P. Field, M. R. C. S.; Archibald E. Garrod, M. D.; Reginald Harrison, F. R. C. S.; G. Ernest Herman, M. B.; J. Ernest Lane, F. R. C. S.; Robert Maguire, M. D.; Malcolm Morris, F. R. C. S. E.; Edmund Owen, F. R. C. S.; Sidney Phillips, M. D.; Henry Power, F. R. C. S.; Charles Henry Ralfe, M. D.; E. S. Reynolds, M. D.; E. Markham Skerritt, M. D.; Walter G. Smith, M. D.; W. J. Walsham, F. R. C. S. Small octavo pp.—496. Lea Brothers & Co., Philadelphia. 1893.

The Students' Quiz Series. Edited by Bern B. Gallaudet, M. D., Demonstrator of Anatomy and Clinical Lecturer on Surgery, College of Physicians and Surgeons, New York. Volume VIII. Diseases of the Skin, by Charles C. Ransom, M. D., Assistant Dermatologist, Vanderbilt Clinic, New York. Pocket size, 12mo, 192 pages, twenty-eight illustrations. Limp cloth, $1.00. Philadelphia: Lea Brothers & Co. 1893.

Disease in Children, a manual for students and practitioners. By James Carmichael, M. D., F. R. C. P., Ed. Physical Royal Hospital for Sick Children; University Lecturer on Disease in Children, Edinburgh. Illustrated with thirty-one charts, pp. xvi.—591. Small octavo. New York: D. Appleton & Co. 1893.

International Clinics. A Quarterly of Clinical Lectures on Medicine, Neurology, Pediatrics, Surgery, Genito-Urinary Surgery, Gynecology, Ophthalmology, Laryngology, Otology, and Dermatology, by professors and lecturers in the leading medical colleges of the United States, Great Britain, and Canada. Edited by John M. Keating, M. D., LL. D., Colorado Springs, Col., Fellow of the College of Physicians, Philadelphia; formerly Consulting Physician for Diseases of Women to St. Agnes' Hospital; Gynecologist to St. Joseph's Hospital; Visiting Obstetrician to the Philadelphia Hospital, and Lecturer on the Diseases of Women and Children, Philadelphia; Editor Cyclopedia of the Diseases of Children. Judson Daland, M. D., Philadelphia, Instructor in Clinical Medicine and Lecturer on Physical Diagnosis and Symptomatology in the University of Pennsylvania; Assistant Visiting Physician to the University Hospital; one of the Examiners of the Insane to the Philadelphia Hospital; Visiting Physician to St. Clement's Hospital, Philadelphia. J. Mitchell Bruce, M. D., F. R. C. P., London, Eng., Physician and Lecturer on Therapeutics at the Charing Cross Hospital.

David W. Finlay, M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen, Physician to and Lecturer on Clinical Medicine in the Aberdeen Royal Infirmary; Consulting Physician to the Royal Hospital for Diseases of the Chest, London. Volume IV. Second series. 1893. Octavo, pp. xxiii.—387. Philadelphia: J. B. Lippincott Co. 1893.

Miscellany.

An open competitive examination of candidates for the position of Female Physician in the State Hospital service, will be held at the rooms of the State Civil Service Commission, in the Capitol, Albany, on Wednesday, April 12, 1893, at ten o'clock A. M.

Applicants must be residents of the State of New York during the year last past, and must be graduates of a legally incorporated medical college, and must have had one year's experience in a hospital, or three years' experience in the general practice of medicine. Salary, $1,200 per annum and board.

For application blanks, address Clarence B. Angle, Secretary New York Civil Service Commission, Albany, N. Y.

Albany, N. Y., March 10, 1893. THOMAS CARMODY,
Chief Examiner.

NEW BY-LAWS, PAN-AMERICAN MEDICAL CONGRESS.

Languages: By-Law IX.—Papers may be read in any language, providing that authors of the same shall furnish the Secretary-General with an abstract not exceeding 600 words in length in either of the official languages, (English, Spanish, French, or Portuguese,) by not later than July 10, 1893, and, providing further, that a copy of each such paper shall be furnished in either of the official languages, at or before the time of the meeting to the secretary of the section before which the same shall be read. Remarks upon papers may be made in any language, providing that members making such remarks shall furnish a copy of the same in either of the official languages before the adjournment of the session.

Publications: By-Law X.—All papers read either in full or by part shall be immediately submitted for publication in the transactions, (Special Regulation, 3,) but authors may retain copies and publish the same at their pleasure after the adjournment of the Congress.

Constituent Organizations: By-Law XI.—All medical, dental, and pharmaceutical organizations, the titles of which have been transmitted with approval to the Committee on Organization, or which may hereafter be transmitted with approval to the Executive Committee by any member of the International Executive Committee, each for his own county, shall be subject to election by the Executive Committee, approved by the President as constituent bodies of the First Pan-American Medical Congress, and each organization thus constituted shall have the right to designate as delegates all of its members attending the Congress, but no such organization shall meet at the time and place of meeting of the Congress as a distinct body, providing that the secretary of each such constituent body shall furnish a list of officers and a statement of the number of members of his respective organization to the Secretary-General not later than sixty days before the meeting of the Congress, and shall forward a list of delegates chosen to reach the Secretary-General before the opening of the Congress.

February 22, 1893. *By the Executive Committee.*

PAN-AMERICAN CONGRESS BULLETIN.

Section on Medical Pedagogics.—The pedagogic section will devote its attention especially to the history of the development of medical education in America. In the papers presented by leading teachers, recent advances in methods of instruction will be considered.

The *art of teaching*, which is regarded as a study of great interest in other branches of learning, has received hitherto but little attention from the medical profession.

The Section in Medical Pedagogics will, therefore, be made a prominent feature of the Congress, and it is hoped that those interested in medical education will coöperate in the work of this section by being present and by actively engaging in the discussion of subjects presented.

Any inquiries or communications may be made through the secretaries undersigned.

J. COLLINS WARREN, M. D.,
Executive President, Boston, Mass.
CHARLES L. SCUDDER, M. D.,
English-Speaking Sec'y, Boston, Mass.
WM. F. HUTCHINSON, M. D.,
Spanish-Speaking Sec'y, Providence, R. I.

To Make Steel Instruments as Bright as New.—(*Medical Brief.*)—Clean the instruments by rubbing with wood ashes and soft water. Then soak them in a weak solution of hydrochloric acid in water (about ten to fifteen drops to the fluid ounce) for a few hours, to remove the remaining rust and grease. Then wash them well in pure soft water. The next step is to place them in a bath consisting of a *saturated* solution of tin chloride. Let them remain ten to twenty-four hours, according to the coating desired. When removed from the bath, wash them clean in pure water and dry well. When the job is well done, the steel will appear as if nickle plated.—*Ex.*

Concerning Disinfection of Banknotes.—According to the *Journal Russkaho Obshtchestva Okhranenia Narodnaho Zdravia* (Journal of the Russian Society for the Protection of National Health), No. 10, 1892, p. 756, the Roumanian Government has recently issued an order to the effect that all banknotes sent to the country from cholera-stricken localities are to be subjected to disinfection with a carbolic solution. The practice has shown that Russian, German, French, and Servian banknotes do not undergo any discoloration even when treated by a ten per cent. solution of carbolic acid. Meanwhile, the Austrian and Italian lose their color, and ultimately transform into worthless bits of white paper, even when they come in contact with a six per cent. solution of the drug.—*St. Louis Medical and Surgical Journal.*

The Bank-note Bacillus—This is the name of a new variety of microbe, thriving, according to a British bacteriologist, on notes of the Bank of England. He believes that a deadly and sure medium for the migration of bacteria is the bank-note of small denomination. Some foreign notes were "experimented" on, and in two cases 19,000 microbes were discovered vegetating on a single note. Among them were identified microbes of tuberculosis, diphtheria, and scarlatina. The great majority of the microbes belonged to a peculiar type which, it is suggested, should be called the Bank-note Bacillus.—*Medical Record, Jan. 21, 1893.*

Notice to Contributors.—We are glad to receive contributions from every one who knows anything of interest to the profession. Articles designed for publication in the Journal should be handed in before the first day of the month. The Editors are not responsible for the views or opinions of contributors. All communications should be addressed to the Managing Editor, 284 Franklin St., Buffalo, N. Y.

Buffalo Medical and Surgical Journal

Vol. XXXII. MAY, 1893. No. 10.

Original Communications.

ADENOMA OF THE NASO-PHARYNX IN RELATION TO BRONCHITIS AND ASTHMA.[1]

By HORACE CLARK, (Harv. A. B., M. D.,) of Buffalo.

Surgeon Charity Eye, Ear, and Throat Hospital; formerly Clinical Assistant Throat Department College Physicians and Surgeons, New York; Fellow of the Massachusetts Medical Society, etc.

In the consideration of this subject I claim no originality, further than the report of a few of my own cases by way of typical illustration; for a few suggestions; and for certain statements which I wish especially to emphasize.

The compiler's work is, however, justifiable; for, consulting the best and most recent authorities, he gives to the general practitioner, or to the specialist in another department, a connected whole upon a given subject. Especially is this true when the subject is one contained in monograph literature, rather than in a recognized special text-book. Furthermore, an original investigation by others is very often invited from his work. It is to him, frequently, that our thanks are due for transforming into strong and indisputable argument, that which has been previously so fragmentary as to be considered merely theoretical or illusory. If I did not hope to fulfil this definition: to give you some positive, absolutely new information upon my subject, I should not have accepted this date for a paper.

"Adenoids" is a term understood by the merest tyro in medicine to mean a certain pathological condition in the naso-pharynx, responsible, in some cases—happily few, now that the condition is recognized,—for years of suffering on the part of the patient, and years of anxiety on the part of the parents. So far as this term goes for the *name of a condition*, I do not know but it serves as well as any other. I cannot understand, however, how the already

1. Read before the Section on Medicine of the Buffalo Academy of Medicine, April 11, 1893.

enormous amount of literature upon the physiology and pathology of this condition can be regarded as but useless, if it has been written with the idea that this superabundant growth is really adenoid tissue. *It is nothing of the kind*, gentlemen, unless I am very much misinformed as to the nature of *adenoid* tissue.

I find in a volume by Jurasz[1], University of Heidelberg, almost fresh from the press, the statement that adenoid tissue, adenoma of the naso-pharynx, and hypertrophy of the pharyngeal tonsil, are synonymous terms. On the other hand, I find in Ziegler's Pathology[2] the statement that an adenoma is a tumor constructed after the type of a secreting gland ; that for a given tumor to be entitled to that name it must consist of epithelial elements on the one hand, and of vascular connective tissue on the other. "It is a true neoplasm, characterized, *physiologically*, by its impotence to produce the normal gland secretion" (upon which type it is constructed), "*anatomically* by its want of relation to the tissue in which it is seated. Its consistence, color, and structure all mark it off plainly from the surrounding tissue. A gland enlarged by overgrowth, or overwork, or chronic inflammation, cannot be described as an adenoma. It is a hyperplasia, a production of lymph-nodules ; and if it be the true gland tissue which is excessively developed, and not merely the fibrous framework, the physiological activity of the gland is thereupon increased." Without quoting, I will mention Orth[3] and Eichorst[4] to the same effect. In any of the works upon microscopical anatomy[5] which I possess, I cannot find this tissue, which is removed from the naso-pharynx, designated as adenoid. Either we must admit there is no such thing as this conglomeration of glands in the vault of the pharynx, constituting, if you please, the so-called pharyngeal tonsil ; that these glands do not undergo a process of hyperplasia, and that lymph tissue *does* occur between the fibrous interstices, or, we must seek for some new explanation of the structure of the growth which we find in this situation. For, *adenoid tissue, or tumor*, it *certainly* is not.

In order to explain etiological factors as relating, especially, to age ; to explain the origin of certain conditions in the lower portions of the air-passages, and in the lungs ; in short, in order for there to be a reason for this paper, I must define the condition somewhat as follows :

1. A. Jurasz : Krankheiten der Oberen Luftwege, 1892.
2. Ernst Ziegler: Path. Anat., Eng. Ed., 1885.
3. Orth: Lehrbuch der Spec. Path. Anat., 1887.
4. Eichorst: Spec. Path. und Therapie.
5. Schiefferdecker u. A. Kossel: Gewebelehre d. Mensch. Körp. Two vols., 1891.

It is an outgrowth of the mucous membrane, in which the glands are simultaneously enlarged. Lymphoid tissue is produced in the form of diffuse cell-infiltration of the mucous membranes—in other words, as lymph-follicles, or lymph-nodules.

Having made myself clear on this point, I shall use the term adenoids throughout this paper as a matter of convenience.

First, as to the relation of this glandular hyperplasia to bronchitis.

The upper part of the thorax, upon which the large auxiliary muscles of inspiration are inserted, becomes inordinately spread apart in consequence of the forced breathing incident to the obstructive lesion in the vault of the pharynx ; while the lower parts, in consequence of the increased intra-thoracic negative pressure, becomes compressed, partly by the diaphragm being drawn upwards, partly, too, by the narrowing of the lower intercostal spaces. This form of the thorax occasions an emphysematous enlargement of the alveoli of the lungs, especially in their upper anterior portions. Lower down the condition is one closely resembling atelectasis. Acute or chronic bronchitis is but a step removed.

I wish to mention, in passing, that Loewenberg[1] has made some very interesting observations and studies upon this peculiar anatomical change in the thorax, as entirely distinct from that form known as " pigeon-breast," of rachitic origin. His investigations are a model of ingenious scientific research.

Another way in which bronchitis may occur is borne out by the clinical facts which I meet with in my daily practice, that these enlarged lymph-follicles upon the pharynx, especially when they extend up behind the soft palate, are a prolific source of cough. Examine the upper parts of the lungs, and you will invariably find, if the condition has persisted for any length of time, a greater or less degree of bronchitis. If the germ theory of bronchitis be correct, then in the bronchitis accompanying *this* condition the germ must reside in these follicles, and should be easy of microscopical demonstration. For, again and again, by means of the cautery point, I have completely stopped a cough of months—in several cases which I call to mind, of years—duration, the history being one not of constant cough, but of cough and oppression in the chest, coming on immediately after a sore throat, to which, says the patient, " I seem to be predisposed, without, indeed, having at the same time cold in the head." This condition is of

1. Loewenberg : Des Végétations Adénoïdes, etc , *Ex. du Jour. de Thérap.*, 1881.

too common occurrence in every throat specialist's practice to warrant the citation of cases.

What has this to do with adenoids? Simply this, that where these lymph-nodules are seen upon use of the tongue depressor, they are invariably found in children by means of the rhinoscope more or less markedly developed in the vault of the pharynx. Fraenkel[1] gives it as his opinion that the follicular pharyngitis of the adult is nothing but the persistence and continuation of the same condition in the child.

That adenoids are causative of bronchitis, even when not of sufficient size to be an obstructive lesion in the upper air-passages, is due to a morbid condition in the naso-pharynx, present also, perhaps, in the nose, giving rise to (1) circulatory disturbance; (2) disturbances of the motor-nerve tracts. As to the way in which the former may operate, I have to report that both the arterial supply and the venous outlet of the upper air-passages and the bronchial tubes are regulated by the same motor tracts. (This explanation is entirely new, and is due to the untiring research of Dr. F. H. Bosworth.[2]) The influence of the latter must be immediately admitted, I think, by the mere mention of the pneumogastric nerve, its branches, and branches of communication, to say nothing of the trigeminus as representing also, in part, the nerve supply.

(The part played by the trigeminus nerve is a subject about which I have had some little experience from puncture experiments. I hope, at no distant date, to give you some definite information on this point.)

It is supposed that the hyper-secretion attendant upon adenoids is passed on into the larynx, giving rise to co-existent inflammation there, which extends downwards, and it is, therefore, offered as a cause of bronchitis. I cannot agree with this. For, why does not the normal secretion from the retro-nasal space, poured out in a daily quantity of several drachms (if I remember rightly), cause laryngitis? This normal secretion is *swallowed*. So, too, I believe the abnormal secretion is either swallowed or hawked out, and does not pass on into the larynx. For illustration, why does not the hemorrhage (sometimes considerable), incident to operation, get into the larynx? If it does not flow out of the

1 B. Fraenkel: *Sep. Ab. Deutsch. Med. Wochen.*, No. 41 ff., 1884. Ueber Aden. Veg.

2. Treatise on Diseases of the Nose and Throat, 1892. Vol. I.

mouth, it appears with the first attack of vomiting in recovery from the narcosis.

I would call attention to the fact that there is a distinction, clinically, between catarrhal inflammation of the naso-pharynx and that of the intra-nasal passages. Nasal lesions which are productive, mechanically, both of bronchitis and asthma, are very different from adenoids, in this sense, in their general course and symptomatology.

I give vaso-motor circulatory disturbance as one factor in explanation of bronchitis occurring in the presence of adenoids. Let me anticipate a question on this point by reminding you that this hypertrophied glandular tissue covers, oftentimes, the whole extent of the basilar process of the occipital bone, spreading over the whole width of the vault to the fossa of Rosenmüller, and even as far as the "cushion" at the entrance to the Eustachian tube. Furthermore, the local mucous membrane of the part does not essentially differ from that of the whole respiratory tract. We find tubular and racemose glands, the whole upper surface of the membrane being covered by ciliated epithelium.

In a monograph by the celebrated clinician, Kussmaul,[1] I find the statement that, an active hyperemia of the lungs, with its sequelæ, may very well be caused by an obstructive lesion in the upper air-passages.

It is not *necessary* that bronchitis should follow measles. That it is one of the sequelæ in many cases, may be dependent upon the existence, known or unknown, of adenoids. On this point I have had no clinical experience; nor can I find any cases recorded. I mention this simply for what it is worth, and for information. That the acute exanthemata aggravate the condition; that, indeed, they often start into rapid growth these glands which before have been quiescent, is a well-recognized clinical fact.

Everyone recognizes the importance of pure air in the prophylaxis of bronchitis. I refer, for example, to workers in factories where particles of dust are inhaled.[2] Given, also, an obstructive lesion in the upper air-passages, and fibroid-phthisis is only too often a consequence hastening the dire result.

The function of the nose as a respiratory organ is, undoubtedly, the most important, delicate, and hence intricate part of the whole air tract. Some sixteen ounces of water are poured out from the

1. Kussmaul: Zeit. für Rat. Med., 1865.
2. Cassells: "Shut Your Mouth and Save Your Life." Edin., 1877.

nose in the course of the day. Interfere with the supply of moisture to the inspired air ; interfere with the air being brought to the temperature of the body, through the mechanism of the turbinated bodies, before passing on to the lungs, and you cause disturbances in the lungs, which are going to result in bronchial disease—a trivial factor in the general picture of the subject of an obstructive lesion in the upper air-passages.

Niemeyer[1] gives it as his clinical experience, that adenoids are often causative of attacks of false croup in children. Frequent repetition of these attacks results in bronchitis.

Other relations between adenoids and bronchitis might be mentioned. (For example, Tornwaldt's[2] cases of post-nasal obstruction, in which enlargement of the so-called "pharyngeal bur sa' figures conspicuously.) I think, however, that sufficient has been adduced by the references already named.

Among my own cases, I shall briefly mention two, illustrative not only of the proposition to be proved, but of the general picture presented by the subject of adenoid disease—a picture not often so deplorable as this one, and yet, in general outline, quite common. The case illustrates, also, the occasional necessity of differential diagnosis—a subject which the limit of this paper precludes.

Case I. C. O., came to me in New York, in January, 1891, with a diagnosis of incurable migraine, and incipient phthisis. The patient was a girl, sixteen years old, with a clear family history, and a personal history of no sickness except measles. She had never menstruated. For some two years her parents had noticed that she had been running down. During the six months previous to my examination, she had occasionally spit out bloody matter, without ever having had hemorrhage. There had been gradually increasing cough, with expectoration, more profuse in the morning. Night-sweats had recently come on, requiring two or three changes of clothing. Her hands were wet and cold. (Chattelier[3] says that these sweats are one of the most frequent and distressing symptoms of obstructive lesions of the retro-nasal cavity.) (Salter,[4] F. C. Shattuck,[5] Franklin Hooper,[6] and others, state the same.) Her sleep was greatly disturbed by a peculiar kind of snoring. Naturally a bright girl, she had been obliged to give up all study. The parents had noticed that after she had been asleep a few hours, notably when the snoring came on, she breathed with her

1. Paul Niemeyer: Atmiatrie, p. 86.
2. Tornwaldt: Ueber d. Bedeut. d. Bursa Pharyngea.
3. Henri Chatellier: Des Tumeurs Adénoïdes du Phar. Nasal., 1886.
4. Hyde Salter: Asthma, Path. and Treat., Lond., 1860.
5. Shattuck: Keating's Enc Children's Dis.
6. Hooper: Adenoid Veg. in Children, *Bost. Med. and Surg. Jour.*, March 15, 1888.

mouth open. During the day mouth-breathing had been noticed with increasing frequency. She said she could hear sounds in her lungs. Examination of the lungs gave me nothing but a chronic bronchitis of no considerable extent. There was a blowing systolic murmur, pretty generally distributed over the chest, almost disappearing after walking rapidly several times across the room. Not to detain you longer, the removal of adenoid tissue, so completely filling the vault of the pharynx as to be seen below the uvula, a portion of the overgrowth being pushed into the posterior nares, was followed within two months by a complete change in the girl's general condition.

Case II. A. B., a young woman of twenty years, was referred to me in February, 1893, by Dr. M. B. Folwell, of this city. The story was, that up to two years ago she had enjoyed such perfect health as to ride horse-back, play tennis, row boats, and walk miles. Since that time she has been gradually falling off. About six months since, she began to cough, especially in the morning. That "tired feeling" seemed alarmingly to increase. Kind (?) friends stated to her that, undoubtedly she had consumption. Brooding over this, occasioned an exacerbation in the decline. As her physician was also a warm friend since babyhood, she rather doubted his statements that she did not have consumption, thinking he meant to be kind. That the gentleman did think, although he did not so state to me, that there might be localized tuberculosis in the larynx, was evident from his manifest surprise and pleasure when I assured him there was no intra-laryngeal complication. The case was one of *bronchitis* with anemia, as, among other clinical findings, the hemoglobin percentage and blood-count showed. In etiology, it was a case of retro-nasal obstruction, of *forced breathing*, causing an improper exchange of gases in the lungs. The result of operation I give in the words of the physician : "The girl is literally made over."

Passing on to asthma occurring with adenoid disease.

Whether he is right, the clearest exposition which I have ever found of this most indefinite and entangled subject, is due to Dr. Bosworth,[1] to be found in two new volumes from his pen. Since he stated to me, a few days ago, that he had been horribly misquoted with regard to his views in this matter, I shall endeavor to quote him correctly. Bronchial asthma he considers apart from asthma with *neurosis*, and refers to text-books upon general medicine for exposition of the former.

Asthma is due to :

1. General neurotic condition.
2. Some obscure condition of the atmosphere.
3. Diseased condition of the upper air-passages.

1. Loc. cit.

Hay-fever is thus tabulated as to its etiology :

1. Neurotic habit.
2. Atmospheric conditions.
3. Disordered condition of the upper air-passages.

I interpret this to mean that both conditions are, therefore, due essentially to one and the same causes ; except that asthma is a *development* which may or may not occur in the course of "hay-fever." Reflection upon this idea has occasioned my own definition, which I shall presently respectfully submit.

"Hay-fever" is designated as "*vaso-motor* rhinitis ;" whereas, he calls the other condition "*perennial*" asthma.

Perennial asthma is defined as a "*disease* characterized by diurnal and seasonal recurrence of attacks of dyspnea, due to an obstruction in the bronchial tubes, in such a manner as to interfere with the free ingress and exit of air therefrom."

Bergson,[1] as far back as 1852, also characterized asthma as a *disease*. That it is a symptom and not a disease, is insisted upon among the earlier writers, notably by Burckhardt,[2] and within recent years by F. C. Shattuck.[3] Shattuck's point is, that if it is a disease, why does it so often disappear in children, for example, after puberty? Other writers state that, asthma has no pathological anatomy. In that case, I cannot see how it can be called a *disease*, except in the sense that dropsy is a disease. But Shattuck's objection to its being thus designated because it disappears, is hardly tenable. I would inquire if adenoid tissue in the vault of the pharynx is not to be considered a *disease* simply because it tends to disappear ; when, in virtue of general bodily metamorphosis, a lymphatic temperament is changed to another, and this tissue begins to atrophy, finally as such to disappear ?

The theory that asthma is due to bronchial spasm seems to have been abandoned by most of the younger writers of the present day.

I would suggest that if these paroxysmal attacks of dyspnea are due to bronchial spasm, why do they have such a predilection for the night as a time for occurrence ? Is not undisturbed sleep directly opposed to any sort of spasm ? In the discussion of this paper I shall surely be told by some one of the older practitioners present, that the asthmatic paroxysm occurs quite as frequently by

1. Bergson : Recherches sur l'Asthme, 1852.
2. Burckhardt : Ber. üb. d. Chir. Abtheilung d. Ludwig-Spitals, 1884 and 1885.
3. Shattuck : Keating's Enc. for Child. Dis.

day as by night. I would remind him that I am dealing with those subjects of asthma in whose upper air-passages some *obstructive lesion* has been demonstrated, for example, adenoids, and *not* with bronchial asthma. In the former case, I would suggest as a reason for the nocturnal attacks, or rather attacks during sleep at any time, the fact that the dry throat caused by mouth-breathing calls forth a constant, even if unconscious, effort on the part of the patient during waking hours to swallow his saliva, or something else, so that the parts may be moistened.

I cannot see why asthma is not a name for an acute exacerbation in the course of a chronic bronchitis, due to partial suffocation because of the swallowing of the tongue (to be explained later); or, if the lesion is not completely obstructive, then of sufficient extent to cause marked interference with the functions of the nose, producing dryness in the throat, which wakens the vaso-motor nerves into over-activity, causing sudden circulatory disturbance, and followed by excitability in the general nervous system, which has until now been quiescent. Why is it not somewhat the same sort of thing as a sudden awakening from sleep, or as a fright, causing dyspnea and cyanosis? This, again, is a suggestion offered for what it is worth, and for information.

I do not mean to say that the subject of adenoids must necessarily *at once* have asthma. In the interest of science, to the momentary neglect of the patient, I would be very greatly obliged to you, gentlemen, if, in responding to summons to your mouth-breathing patient, you would put your stethoscope on the upper and anterior portions of the chest, and see if a state of things akin to the asthmatic paroxysm is present.

All writers are agreed in this, that underlying the condition called asthma (except bronchial asthma), is a *neurosis*. Now, how is a neurotic temperament developed because of adenoids in the naso-pharynx?

Normally, the under jaw is held against the upper one by atmospheric pressure. When the lips are closed, the pressure of the tongue against the palate, or processus alveolaris, produces a sort of vacuum (in imitation of the suction-pump) which prevents the sinking down of the under jaw. When, in consequence of mouth-breathing, the formation of this vacuum is impossible, the under jaw sinks, and a peculiar snoring is heard during sleep. This snoring is produced, not by the soft palate, but by contact between the base of the tongue and the epiglottis; in other words,

there is *a swallowing of the tongue.* (Exactly the same thing may occur in chloroform narcosis.) Thus a *stenosis* of the upper air-passages is produced; sleep is disturbed, hence not restful. The general condition suffers, and a neurotic temperament is engendered.

In noting the extent to which this neurosis may lead, in subjects of adenoid disease, Chatellier[1] cites cases of melancholia, hypochondriasis and of intense headache in the upper and back part of the head. These conditions, he says, relate to exacerbations in the course of the disease.

I am sure you will be glad to know that I do not propose to discuss the question of "hay-fever" in relation to adenoids. Within recent years, so many writers have run wild upon this subject, as to lead one, at any rate, who is opposed to reflex explosions, caused by nasal irritation, to inquire what constitutes a normal nose? I have been asked what *kind* of lesion in the nose to look for in cases of "hay-fever!" If there is no such thing as a *healthy* nose, certainly no two *diseased* noses are alike. Look for *some, any* lesion in the nose. Cases are too numerous to cite. I will merely mention that only yesterday I removed a cystic mass of material from the middle turbinated body, which mass, together with hypertrophy of both the middle and inferior turbinated bodies, completely occluded one nostril, the other being nearly closed by a deviated septum. This patient, now twenty-five years old, has been an intense sufferer with asthma (not hay-fever) since childhood, and is now in a wretched state of general debility.

In this paper I have to deal with hay-fever only in so far as it is associated with asthma. I must either withdraw my definition of asthma or bring the special treatment of my subject to a close. For I have stated that, asthma, whatever it may be pathologically, is clinically only a concomitant of emphysema and bronchitis; or, it is a desultory condition, of uncertain persistence, attendant upon the morbid state of the pituitary membrane along some portion of the upper respiratory tract. It was to "kill two birds with one stone" that I dwelt at length upon the disturbances of innervation, mechanical changes, etc., incident to adenoids and these conditions in the chest.

I wish to mention, also, the relation of flatulence, intestinal parasites, etc., to asthmatic paroxysms in subjects of adenoid disease. Prefatory to explanation, I must again acknowledge my adherence to Bosworth's opinion, that no asthmatic paroxysm,

1. Loc. cit.

aside from that of true bronchial asthma, can exist without there being *some* lesion in the upper air-passages. I do not mean that such a lesion is *alone* responsible ; but, "vaso-motor weakness of the bronchial tubes," which, in the presence of unusual reflex disturbance, such as flatulence or intestinal parasites, may predispose the patient to an asthmatic attack. The flatulence is simply an adventitious symptom, or complicating circumstance, which precipitated the attack.

If the upper air-passages of the asthmatic adult were more generally examined, I believe that, in every instance, one or more *conditions* pathognomonic of previously existing adenoids would be found by inductive reasoning. I refer, for example, to the notable ("Gothic") arching of the roof of the mouth; lateral compression of the epiglottis ; or chronic nasal catarrh, due to circulatory disturbances.

The arched palate is very commonly observed.

This drawing shows the lateral compression of the epiglottis, which is somewhat rare, and not to be mistaken for a lateral deflection sometimes seen in paralysis. It shows, also, how the epiglottis, coming in contact with enlarged glands at the base of the tongue, gives rise to a "tickling cough," "a *grating*," "a feeling as if something were in the upper part of the throat, which can be neither coughed nor hawked out." The subject of this sketch, referred to me by the kindness of Dr. Gilray, presented enlarged follicles upon the pharynx, and enlarged glands at the base of the tongue. I very commonly find these enlarged glands as a concomitant of follicular pharyngitis. I might mention, in this connection, hypertrophy of the faucial tonsils, and those cases of disease of the several air-sinuses in the adult, as evidence of preëxisting obstruction in the upper air-passages. I do not believe, however, that hypertrophied faucial tonsils alone have much, if anything, to do with respiration.[1,2] Deformities of the jaws of the adult, and of the progressing deformity of the jaws and alveolar processes in young children, (both results of forced breathing,) persisting in spite of the dentist's effort to overcome atmospheric pressure by means of his plates, has been thoroughly studied by Dr. Hooper.[3]

(The question of adenoids and other obstructive lesions of the upper air-passages in relation to deaf-mutism, will be the subject

1. Dupuytren : (Rep.) d'Anat., 1828.
2. Robert : Hyp. of the Tonsils, etc., 1843.
3. Hooper : The Mech. Effects of Aden. Veg. in Children. Rep. of Boston City Hospital, Fourth Series. 1889.

of a paper by me as soon as opportunity offers for careful investigation.)

As to tabulation for age of occurrence, I consider the subject of "adenoid asthma," if I may coin a term, altogether too new for such statistics to be of much value. Salter[1] declares the first decade to be the age of prevalence. The greatest number of Bosworth's[2] cases occurred in the third decade; while Jurasz[3] finds his statistics increased between the first and second decades.

When I tell you that the first operation done in Boston for the radical cure of this particular respiratory obstruction, was at the hands of Dr. Hooper as late as 1885; when, too, you look at the length of the chapter in your text-books, published as late as five years ago, on asthma in children, (in which, by the way, nothing is said about congenital asthma,) you will appreciate why this whole subject is still in its infancy. That we shall know a good deal more about it in the near future will be due largely to inquiry on the part of the medical practitioner.

In conclusion upon the theme, *per se*, of this paper, I have to thank you, gentlemen, for your close attention. As this is the first time I have had the pleasure of appearing before this section, I would ask your further indulgence for a few minutes, at the risk of being technical and surgical, that so I may put myself on record in Buffalo as standing for a few points in relation to the general subject.

The excuse generally offered by the specialist in my department for a paper before medical clinicians is, first, that the general medical practitioner should be told how to recognize the presence of adenoids; secondly, that he should operate the cases in which he has made the diagnosis. Now the general medical practitioner does not usually examine with the mirror, but with the finger. During my limited experience in teaching, I have told the physician, or student, that by digital examination in a given case, he would find adenoids. Almost invariably he has confirmed the suggested diagnosis. Telling him, now, to examine the same case with the rhinoscope, he finds no suspicion of disease. The fault lies in this, that digital exploration causes contraction of the soft palate; also the rugæ of the mucous membrane are brought into undue prominence. A normal condition is, therefore, pardonably mistaken by the inexperienced for an abnormal one. Operation under these circumstances would be most deplorable.

1. Loc. cit.
2. Loc. cit.
3. Loc. cit.

I would not be understood that digital examination is of no value. The lateral and postero-superior regions of the vault of the pharynx are not readily seen, if seen at all, in the mirror. This method is also of great topographical value, as well as for determining differences in density of the tissue. I never operate without supplementing rhinoscopic by digital examination.

Anyone, with a little practice, can get a view of the larynx in most cases. The rhinoscopic image is, unfortunately, not so easily obtained. Having had considerable experience with cases in which the use of the rhinoscope has led the way to almost immediate recovery from a diagnosis of anemia, or even of incipient phthisis, I would earnestly urge you to more careful practice in the use of this instrument. Dr. Hooper[1] says : "With a tithe of the attention paid to the naso-pharyngeal cavity, which is given to other less important regions of the body, there would be no necessity for referring such cases to the specialist for either diagnosis or treatment."

Allow me to note a few points which you will find of value in the practice of rhinoscopy. Where the difficulty is with the arched tongue, any undue force with the tongue depressor will be of no assistance. Most children old enough to understand what is wanted of them, can very soon train themselves to flatten their tongue. Loewenberg[2] recommends the inclination of the thorax forward and the head backward. Thus the greatest distance between the soft palate and the back of the throat is obtained, by the pushing back of the cervical vertebræ.

I put my patient in an upright position, then draw him towards me, without his moving in the chair. The head is then tipped backwards.

Another method which often succeeds, is to have the patient sit upright and, without inclining the thorax, to tell him "*to drop his chin.*"

A very young child understands, in the rule, what you mean when, with the mirror successfully in position, you tell him to breathe through his *nose.* This is another important aid, impossible, of course, if there be considerable stenosis.

As to operation by the general medical practitioner—unless, indeed, he has had sufficient experience to possess special knowledge—I wish most emphatically to say that, of all the naso-

1. Loc. cit., No. 1.
2. Loc. cit., No. 1.

laryngeal conditions commonly requiring operation, I regard this one most eminently fit to be sent to the specialist. It is not by any means a difficult matter seriously to wound the underlying healthy parts. The profuse hemorrhage which I have so often seen in forceps operations in unskilled hands for removal of this tissue, is undoubtedly explained in this way. With the instrument to be explained further on, such an accident would be unpardonable. (As a matter of fact, I get very little hemorrhage in my adenoid operations ; and what there is, usually ceases before recovery from chloroform.)

To say nothing of a lack of knowledge of the regional anatomy and relative thickness of the membrane, the favorite instrument in the hands of the general medical practitioner is usually the finger-nail. Such an operation I regard as ridiculous. If surgical interference is demanded, it seems to me that a *surgical instrument* should be used. The "finger-nail" procedure is also entirely at variance with antiseptic surgery. My school days are not so far remote, that I cannot remember noting in a lecture by Dr. Fitz, Shattuck professor of pathology in Harvard University, the statement that, to make the tips of the fingers aseptic is an impossibility. (The finger tip to *feel* with is a different matter from the same thing to *scratch* with.) Moreover, the result is never complete at one sitting. I searched in vain for condemning authority until I found B. Fränkel[1] stating that he had never followed this advice; and that "in view of the many specially adapted instruments of the present day, to use the finger-nail would seem like returning to the stone-age of our scientific knowledge." Many of you will have read, in so recent a work as Keating's "Encyclopedia of Children's Diseases,"[2] that "this method is by far the most effective and is without any possible objection." You will also find these growths defined in the same article as *papillomatous*. This latter statement, as already proved, makes the former valueless for authority. Bosworth[3] had evidently omitted this article in his research for authority to state that "no one but Woakes still adheres to this idea of the papillomatous nature of these growths."

As to the *best* instrument for operating, I have simply to say, every man to his own choice. Books and monographs in English

1. Loc. cit.
2. Harrison Allen : Adenoid Growths of the Vault of the Pharynx.
3. Op. cit.

mention various kinds of *curettes*. It is the exception that any form of curette is advised as preferable to forceps in some form. The Gottstein ring-messer is the instrument in most general use in Germany. Several years ago I began an operation with it, only at once to call for my forceps. If this same Gottstein ring-messer had not been made, I might not have the instrument which has given me, and many others who possess it, the utmost satisfaction. I have not asked Dr. Lefferts' permission to publish this picture ; but, as the instrument has largely superseded the original, even in Germany, and is so highly prized by many operators, I do not know that his modesty in withholding more general information about his instrument is altogether becoming. Its special adaptability is in the tipping toward the handle of the upper part of the curette. It is but necessary to consider where the cutting edge of an ordinary right-angled curette (*e. g.* Hartmann's) would reach the vault of the pharynx, remembering the limited downward obliquity of the shank, when the instrument is in position, because

THE GOTTSTEIN RING-MESSER, MODIFIED BY LEFFERTS.

of its contact with the lower jaw. This projection towards the handle brings the cutting edge of the curette as far forward as the septum. Indeed, with an upper corner of the curette, I have scraped away portions of the growth which have encroached upon the lumen of the choanæ. The removal with the finger-nail (so commonly done) of ragged fragments left behind in forceps operations, is rendered entirely unnecessary when this instrument is used. It makes a *clean sweep !* I can *feel* with it as with a probe, which is impossible, I think, with the forceps. With the currette in position, I use force sufficient to crush through the growths. Maintaining this force, the handle of the instrument is elevated, beginning, at the same time, the downward sweep with the cutting edge. (At a recent operation, my assistant, holding the head, told me that he felt the initial *crushing*, the impulse being communicated through the bones of the head.)

But I am afraid, gentlemen, that my enthusiasm, expressed at any further length, would cast doubt upon the philosophical truism that selfishness and generosity are synonymous terms.

My thanks are due to Dr. E. J. Gilray for reviewing a number of monographs in English on this subject.

21 West North Street.

[Note.—The Gottstein ring-messer, modified by Lefferts, is made by Pfau, in Berlin, and Rynders, New York.]

REMARKS ON THE MANAGEMENT OF SUPPURATION, COMPLICATING TUBERCULOUS DISEASE OF THE BONES AND JOINTS.[1]

By LOUIS A. WEIGEL, M. D, Rochester, N. Y.,

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With the advanced knowledge of surgical pathology, many points in the etiology of tuberculous bone disease have been cleared up, and the general methods of treatment are supposed to be more scientific and accurate. An examination, however, of the literature on the treatment of tuberculous bone abscesses clearly proves that surgeons are far from being agreed as to the proper course to pursue in any given case. Fifty years ago, Sir Benjamin Brodie advised amputation in cases of extensive or protracted suppuration as the best method of stopping the progress of the bone disease which gives rise to it, and save the patient's life. It is not surprising that, from this extremely radical procedure, surgeons drifted to the other extreme of ultra-conservatism and advised against all operative interference in tuberculous bone disease, save under exceptional conditions. While the advent of antiseptic surgery has modified former opinions with reference to the justifiability of operative interference in the class of cases under discussion, the advisability of aspiration, incision, or drainage, etc., is not generally admitted. Unanimity of opinion may be out of the question; at the same time it ought not to be difficult to establish some well-defined principles in the treatment of tuberculous abscesses.

The days of expectancy in the management of serious diseases of the bones and joints and their complications are past. While it is sometimes admissible or even advisable to treat abscesses expectantly, there can be no reasonable objection to operative

1. Read before the Medical Society of the State of New York, February 8, 1893.

interference in a large proportion of cases. Judson's[1] statement that "the great number of scarred but healthy cripples who have recovered without surgical attention excludes the thought of malignancy, and even indicates that in every uncomplicated case a point will be reached when the destructive is replaced by a reparative process," can hardly be regarded as an argument in favor of non-interference. For it has been demonstrated by careful observation, that patients having the advantage of intelligent supervision and treatment usually recover more rapidly and with functionally better joints, and are less likely to develop abscesses during the progress of tuberculous bone disease. These results can fairly be attributed to the modern conservative method of treatment, which does not exclude the use of the knife. Conservatism must not be confounded with expectancy.

The element of time is of some importance in all tuberculous diseases. Prolonged suppuration from bone disease must necessarily have a deleterious influence upon the general health of a tuberculous subject. If, by any procedure, the natural duration of the disease can be shortened, it is a distinct gain to the patient. I am not prepared to admit that a child's time is of no value, so that it is a matter of indifference how protracted the duration of treatment may be in any given case. Simple protection and fixation of a joint is often sufficient to secure a good result; still, not infrequently, surgical interference may be necessary to avert extensive destruction of bone and prevent joint implication.

It may be true that in hospitals and among the poor, cases must be treated on a somewhat different plan than those occurring among the better classes. In the former, operations are frequently performed for the purpose of shortening the duration of treatment. Now, if, by such operative interference, good results are obtained in a comparatively shorter time, I see no reason why a similar method of treatment is not applicable in private practice.

It is a well-recognized fact that when a tuberculous focus is located near an articular surface, there is great danger of an extension of the disease into the joint. For this reason protection and functional rest are necessary in order to limit the extent of the tubercular ostitis, in its early stages. In some of the more accessible joints of the body, a focus can usually be located with some degree of accuracy. When this is possible, it is a comparatively simple matter to remove it absolutely by an operation and thus

1. *Medical Record*, May 18, 1889.

prevent joint implication, and diminish the probability of general infection. This method of treatment is especially applicable to disease about the ankle-joint. It should be remembered that softening, caseation, or suppuration, may take place in the bone before there are any marked external evidences of the destructive process going on within. An early diagnosis and appropriate treatment are the best safeguards against joint implication.

The two following cases, dissimilar in character, illustrate this point:

Case I. F. Z., *æt.* 5 years, examined in September, 1890, gave a history of a traumatism. His present symptoms consisted of slight pain in the ankle, and limping. Rest was advised and the parents requested to present the boy for re-examination four weeks later. The patient, however, was not seen again until January 29, 1891, when he was admitted to the Rochester City Hospital. At this time the joint was hot, swollen, and very painful, and presented the general appearance of an acute synovitis. I satisfied myself, however, that it was not a case of synovitis, but one of bone suppuration. As there was no improvement under treatment by rest, an operation was performed March 2, 1891. On exposing the internal malleolus, the bone was found to be of a bluish color and in an osteo-porotic condition. It was a simple matter to open the cavity in the bone and remove the pus and degenerated tissue found there, with the sharp spoon. An incision over the external malleolus revealed a similar condition, and was accordingly operated upon in the same way. The cavities were packed with iodoform gauze, and an antiseptic dressing applied. In less than three months the boy was discharged absolutely recovered. The general health of the patient began to improve within a week after the operation, and is now remarkably good. Within the past week I examined the boy again, and found an absolutely normal joint and no evidence of bone disease; the leg, however, is one-half an inch shorter than its fellow.

Case II. F. L., *æt.* 8 years, an orphan asylum subject, was admitted to the hospital May 1, 1891. No previous history obtainable. Present symptoms consist of swelling over the internal malleolus, limping, and extreme tenderness on pressure. On May 25, 1891, the epiphysis was opened, a quantity of soft, cheesy matter removed, and the bone thoroughly curetted. After-treatment the same as in Case I. The patient made a rapid recovery, and was discharged from the hospital July 10, 1891. A recent examination of this patient demonstrates the permanency of the recovery. He is in excellent health, is free from pain, and has a normal joint.

In the first case the necessity of an operation could not be

questioned, and the ultimate result abundantly proved its advisability. Whether the shortening is the direct result of the operation, or due to a tropho-neurotic lesion, is an open question. Atrophy of bone and muscle usually occurs in these cases, under all forms of treatment. In any event, the shortening is of less importance than a useful joint.

In the second case, recovery might have taken place without operative interference, by rest and fixation, continued for an indefinite period. The operation brought about a rapid recovery and removed all probability of secondary joint infection.

It may be of interest to add that an older brother of this patient died from spondylitis and general tuberculosis, about two months ago.

43 Mortimer Street.

TREATMENT OF ENDOMETRITIS.[1]

By HERMAN E. HAYD, M. D., M. R. C. S., Eng., Buffalo, N. Y.

Before accepting this paper, we must admit the existence of the disease called endometritis. There can be no doubt that the interior of the uterus is lined by a mucous membrane, and that it is clothed with epithelium, and has in its substance glands which secrete a material much like other mucous membranes. Like other organs of the body, it is the seat of congestions, catarrhs, and inflammations; and according as the intensity of this inflammation be greatest in the neck or body of this organ, so we have acute, subacute, and chronic cervical and corporeal endometritis. However, it must be understood that there cannot be any fast lines of limitation in these processes, as the one shades imperceptibly into the other. Moreover, we seldom see an inflammation confined absolutely to either neck or body of the uterus, but it extends by reason of continuity of tissue to the tubes, ovaries, and peritoneum, in varying degrees of intensity, and perhaps dependent upon the source of the infection, or at all events upon the cause and severity of the initial inflammatory onset.

But little need be said of the treatment of acute endometritis, since Nature rebels against local interference in these acute inflammations. Rest and quiet in bed, hot applications to the lower abdomen, codeia or morphia for the pain, and hot vaginal douches

1. Read before the Section on Obstetrics and Gynecology of the Buffalo Academy of Medicine, February 28, 1893.

given very gently, and only continued if grateful and comforting. At the onset, a brisk saline is not only good treatment for lessening the intensity of the disease, but it often cuts short and even aborts the attack.

If the cause be an acute specific infection, like gonorrhea, I am satisfied that dilatation and curettement under the strictest antiseptic precautions, and packing the uterine cavity with iodoform gauze, is a very brilliant and scientific procedure; because in these cases there is the greatest tendency to chronicity, and the possibility of irreparable mischief in the tubes and surrounding structures, even very early in the course of the disease. Frequent irrigation has its advocates in these acute septic and specific forms of endometrial trouble, by syringing the uterine cavity every hour or two with corrosive sublimate solutions; but that course of treatment which does away with the too frequent manipulation and handling of the parts gives the most satisfactory results; and, therefore, in my own practice, I prefer to make one operation, and with care and due cleanliness we can do no harm even in the most acute and virulent conditions. In the less acute inflammations, resolution is often brought about by properly applied glycerine tampons—either with boroglyceride, fifty per cent., or ichthyol, fifteen per cent., or glycerine and tannic—every other day, and on the intervening day to paint the vault of the vagina and cervix with Churchill's tincture of iodine, or to apply negative galvanism with Goelet's clay electrode, or intra-uterine galvanic applications, as advocated by me in previous papers on this subject.

The great surgical principle of drainage is nowhere in the whole domain of surgery more necessary for the proper management of the chronic and very intractable forms of the disease. An inflammation has extended from the mucous membrane into its glandular elements, structural disorganization, or excessive hypertrophy of them has taken place, the walls of the uterus, its connective tissue, and muscle fibre have been multiplied and developed, and, perhaps, the tubes, ovaries, and peritoneum seriously involved. The uterus has sagged downwards, and backwards, or forwards, and the escape of the profuse and constantly accumulating discharge is obstructed.

Now comes the consideration of the most difficult and perplexing problem in uterine and pelvic surgery. Is the endometritis, which has been responsible for the existing salpingitis, ovaritis, and peritonitis, the point of surgical attack, or has it ceased to be an

important factor when the tube and ovarian mischief can, with reasonable certainty, be felt and diagnosticated? Naturally, the more the source of irritation be endometrial the more can we expect from local and conservative treatment, while, on the contrary, if tubal and ovarian disease exist to any greater degree, ablation of the offending organs is, perhaps, the only hope of relief. As a result of these premises, two great schools of pelvic surgery have their existence, the one believing that endometritis seldom requires any special treatment other than good hygiene, absence of sexual relation, good food, and good environment, tonics, and daily soluble movements from the bowels. In other words, ill-health and much suffering indicate not simply a condition curable by simple means, but serious tube and ovary mischief curable by no means short of an abdominal section. On the other hand, and I believe there is a growing feeling in the profession that conservative treatment is much more often called for, and that the endometrium is the seat of progressive mischief. About ten years ago, Dr. Gill Wylie brought to our notice his stem drain, which he introduced into the uterus after curettement, and, two years ago, Dr. William Polk emphasized that treatment by giving us his simple but very efficacious operation, and with it a report of a large and extremely interesting class of cases, in which there was considerable tubal and ovarian mischief, kept up and dependent upon endometritis. The operation consists, first, in thoroughly washing the vulva and vagina with soap and water, and then irrigating with 1×2000 corrosive sublimate solution. The cervix is to be freely dilated, and the cavity of the uterus thoroughly curetted, and then again freely irrigated with the solution. Polk's cervical speculum is then introduced, and the whole uterus packed with gauze. He takes thin strips of gauze, one-half an inch in width and three feet in length, and places them during the operation in a solution, 1×500, of corrosive sublimate, and quickly squeezes out the excess of fluid, and then places them for a few seconds in pure water, and, with the aid of a Sim's screw, packs the uterus, being careful to fill the cornuæ. This packing is left *in situ* for one week, and is then removed with a pair of long dressing forceps. If there still remains tenderness, the packing is renewed. I prefer iodoform sprinkled upon the gauze, as I found, in my first cases, that the gauze drain soon became very offensive. So favorably has this method of treatment been received in New York, that many operators first curette and pack the uterus before

doing a section, so as to get a perfectly clean field, and either complete the section upon the same day or a few days later. I have done this operation eighteen times, and for a varied class of cases, and in none have I seen any fever or constitutional disturbance follow, showing positively that, with reasonable care and with the strictest antiseptic precautions, in properly selected cases, this procedure is practically without danger. And so satisfied have I been with the results, that I commend it to you very strongly. It is claimed, and I believe justly, that the great advantage of packing the uterus after curetteage is that it stimulates quicker and more perfect involution; that it promotes more perfect and permanent drainage by insuring patency of the cervical canal; that it assists in the restoration of a malplaced organ by supplying a soft support as well as drain; and that the mucous walls of the uterus, being separated by the gauze, a healthy epithelium is soon produced. I have seen the most inveterate cases of uterine leucorrhea, associated with metrorrhagia and menorrhagia and painful menstruation, cured by this simple procedure, when a long course of uterine applications of iodine, carbolic acid, etc., etc., had failed to bring about any improvement. But I have also been equally disappointed in cases of painful menstruation, where I had confidently expected a cure—in cases where no marked tube trouble was present—and which shows conclusively that we can often have dysmenorrhea, not dependent upon a hyperesthetic condition of the mucous membrane of the internal os, but an irritable nervous system, and relieved only by such means as will strengthen the natural vigor of the whole economy.

I prefer to do this operation in those cases of endometritis associated with slight tubal thickening, when heretofore I used applications of iodine, carbolic acid, and intrauterine galvanic treatments, believing that it is less dangerous to thoroughly clean the uterus at one sitting than to subject the patient to the possible dangers of increasing tubal trouble by too frequent intrauterine medication.

Of course, I do not wish to be understood that this operation is to take the place of that brilliant surgical procedure, salpingotomy and salpingo-ophorectomy; because nothing short of a laparatomy can cure a big pus tube with its accompanying ovarian abscess; but I do believe that tubal and ovarian inflammations, short of pus collections, are often cured by dilatation curettement and uterine drainage, and without adding a large element of danger either to

the existing inflammations, or to the possibilities of remoter mischief.

And lastly, it must not be thought that all cases of chronic endometritis require these vigorous measures, because, in many instances, simple constitutional remedies, which have in view the bringing up of the general tone of the system and the correcting of any existing diathesis, as gout, scrofula, syphilis, etc., etc., are all that is necessary. Moreover, if there be a marked laceration of the cervix, with ectropion of its lips, an Emmet's operation alone, or with a curettement, is indicated; and, in fact, every recognized cause of the disease must be considered, to get the best results. Therefore, the physician must look farther than the mere confines of the uterus and its adjacent structures in treating its diseases, and will need to search, studiously and patiently, the whole economy, and bring to bear, in the treatment of these special diseases, the experience and judgment of a well-educated general practitioner of medicine.

78 Niagara Street.

NERVOUS DISTURBANCES OF PREGNANCY DUE TO DEFECTIVE EXCRETION.[1]

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The mere existence of pregnancy is too often considered as the cause of the nervous disturbances associated with it. An unimpregnated woman may suffer from functional nervous disorders and have the causes correctly ascertained. Why a pregnant woman should not be accorded the same consideration, I know not. The text-books on obstetrics usually devote a space to the nervous disorders of pregnancy. This, naturally, presupposes that because a woman is pregnant she will have some neurotic troubles. It must be admitted that pregnancy, and the great nutritive and nervous activity coincident with it, render the women more susceptible to such exciting causes as would manifest themselves in nervous outbreaks.

Because of the attitude of obstetric writers, the inexperienced may believe that these ailments will continue to the end of gestation and will cease not a moment earlier. This is also a popular

1. Read before the Buffalo Medical Club.

belief and, in consequence, many women fail to consult their physicians for serious, yes dangerous, conditions. Many women I have seen who have borne up during a weary nine months with troubles which could have been promptly relieved had they been given attention. Defective elimination of tissue waste poisons the nervous system. The maternal excretory organs in pregnancy must eliminate the combined waste of mother and child. Considering this and the more irritable state of the nervous apparatus in pregnancy, it is no wonder that slight defects in excretion make pronounced nervous effects.

About five years ago, I first came to realize that there are other causes for these than the mere existence of pregnancy.

The first case which taught me this was an exaggerated one.

She was a healthy appearing robust multipara, about twenty-five years of age; seven months in her second pregnancy. Her appetite was poor, tongue furred, bowels nearly regular, but she was nervous, despondent, and sleepless. For nearly a month she had slept only a small part of the night. There was no anasarca; the amount of urine excreted was about normal, and contained no albumen or casts. The skin was harsh and dry. She had not perspired perceptibly for the past three months. After watching her for a week or more, in the meantime giving her anti-spasmodics and hypnotics without much relief, I again examined her urine, and found the quantity sufficient but the specific gravity was low. As soon as I began to stimulate the elimination of solids by saline diuretics, her general condition improved, her nervousness decreased, and she could again sleep during a large portion of the night.

To complete the result, I stimulated her skin to activity by the hot steam bath, the result of the combined treatment being a complete restoration to a state of mental and nervous quietude.

In the meantime, I have seen several more cases in hospital and private practice, presenting a wide variety of nervous phenomena, most of which could be traced to defective excretion as the cause. The last half of pregnancy is the period in which it most frequently occurs. The usual conditions found are loss of appetite, a furred tongue, either constipation, a dry inactive skin, deficient quantity of urine—or a urine deficient in solids. Some or all of these may coexist. The usual train of nervous disturbances is nausea, pyrosis, backache or headache, neuralgia, general nervousness, or despondency and insomnia.

A pregnant woman should be more closely watched during pregnancy than is the custom. Her last three months, at least,

should be passed under the direction of her expected attendant. His services during this period may never be absolutely necessary in any individual case. But, if aught arises, it will be known, and harm thereby prevented.

The urine should be examined frequently. By examination I do not mean that it be tested only for albumen. The entire quantity for twenty-four hours should be saved and measured once a week, at least, and a memorandum of the quantity and a sample of the same sent to the physician's office. While still fresh, it should be examined thoroughly enough to allow no possibility of abnormal conditions to escape him. A quantitative estimation of urea should be made. It is so easily done that I am in the habit of doing it at each examination. The condition of the patient's skin demands attention, and frequent recourse had to the warm vapor or hot-air bath, if it shows a sluggish tendency. The alvine excretions also demand constant supervision. The best hygienic surroundings, sufficient exercise in the sunlight, good nutritious food, tonics, and helps to better digestion and assimilation if needed, a care to the waste gates of the body, and if the woman begin her pregnancy with healthy organs and a normal vigor, she must come through her gestation and accouchment with fewer ailments, and with less drain upon her vitality, than by any other means.

In the treatment of defective elimination, I have found that best results can be had, in most cases, by a strict milk diet for a few days, laxatives, hot air, steam baths, or hot packs, and saline diuretics. Basham's Mixture, or the Liq. Ferri et Ammonii Acetatis, of the Pharmacopeia, I have found to be one of the best diuretics. In two cases, in which I suspected pressure upon the ureters by the lower uterine segment and contents a cause of the deficient urine, I placed the patient in a lateral prone position while sleeping, thus allowing the uterus and contents to be lifted out of the pelvis and decrease the pressure.

Nervous sedatives and hypnotics may be of use in the treatment, but they do not reach the cause. Little benefit comes from their use while the cause of the trouble exists.

64 Richmond Avenue.

A Koch laboratory is to be erected at the World's Fair, this Summer, to illustrate in a thoroughly practical manner, the eminent professor's work in microbic culture.

THE RESPONSIBILITY OF PHYSICIAN TO PATIENT, CONSIDERED FROM A LEGAL POINT OF VIEW.

By WILLIAM L. MARCY, Esq., Buffalo, N. Y.

The learned professions have nothing to gain by surrounding their practice with mysteries ; the legal profession has been slowly discarding old wigs and gowns, forgotten words, and obsolete practices ; no lawyer could ever tell why the penal clause in every bond you sign with a mortgage on your house is made in double the sum that is agreed to be paid. You will not regard this allusion as personal, for in this real estate age every man has a lot and every lot has its mortgage. What is the reason for this penal clause ? It has only a poor feminine excuse—it is so, forsooth, because it is so. After years of uselessly treading this path our fathers trod, some legislator with a thought under his cap will write a law on the statute books burying this foolishness and marking on its tombstone "*obsolete.*" Yet, all professions are slow to change and jealous of innovations. The elders want not to unlearn and forget, to acquire new habits of thought and speech, and so new truth makes slowly. But change we must, and he who is past learning a better way is surely past the meridian of his usefulness. The attorney does not fear the simplification of practice and procedure, the weeding out of useless words and phrases. That handy volume, "Every Man His Own Lawyer," has evolved an adage which works out a solution, for it has also found a fool for a client. And is it not pardonable if I ask of this very intelligent body of men, what good end is gained by deluding your patients with bread pills and *aqua pura.* Would not a cheery word of encouragement, a vigorous pat on the back or chuck under the chin serve quite as well ? Poor humanity is so credulous, it loves so to be humbugged, yet I like my doctor to be truthful.

Law is an evolution ; each discovery injects a new problem into the social organism. With the introduction of railroads, for instance, a new factor came upon the scene of action ; from that day until the present, thousands of cases have been tried in the courts, presenting an infinite variety of situations and questions that have necessarily arisen in the development of that great industry. New rules had to be made and applied ; partly in the legislature and partly in the courts this branch of the law has grown into copious proportions. It is not always perfect or har-

1. Read before the Section on Surgery of the Buffalo Academy of Medicine, April 4, 1893.

monious, but, on the whole, it has developed and will develop into a just and wise system. In the main, law is impressed upon an industry by those who are not engaged in its pursuit; it is an intelligent effort to follow in the line of justice and equity, and do that which common sense and common prudence say are right and reasonable. Truth and justice must be in every law. When the history of our day and generation is written, it will be mainly from our laws and their enforcement that this civilization will be judged. Candidly, do you think our children's children will look down upon us and wonder at some of our Egyptian practices?

Now, to talk to my text, I have been requested, within the limit of fifteen minutes, to make clear and plain what measure of justice has been doled out to the doctors, what rule of responsibility your patients, in court and legislature, have imposed. The legal principles involved have no exclusive application to the department of surgery, but it doubtless happens that in the other departments of medicine the results of the physician's error are not so readily discoverable, and, hence, are not often the subject of litigation.

The patient gets well, and he is glad enough to get out, or, if he dies, the tombstone covers, at the same time, occasion, cause, and effect.

With surgery, however, the patient can look at the mutilated member. There is a certain community of misery and suffering which brings the good neighbor in to visit and to gossip, and which prompts the kindly offer of home-made remedies. It leads inevitably to a critical analysis of the case in particular, and a comparison with all others known, and soon the patient is told how Dr. Jones performed the same operation successfully on Mrs. Smith. When your patient recovers, and finds that his arm is stiff and he cannot use it, or that the injured leg is two inches shorter than its brother, he inquires into the situation, and his inquiries lead, occasionally, to the lawyer's office. How will he be advised there? That is the question. The first inquiry is, Did the attending physician possess that reasonable degree of learning and skill which is ordinarily possessed by men engaged in the practice of that profession? This query is, generally, easy of answer. In cities, where the tendency in the profession is into specialties, the general practitioner rarely treats surgical cases, and the reputation of the doctor among his fellows is readily ascertainable. The law requires him to possess, not the highest, not the best qualifications but ordinary professional skill. The reason for this is obvious. No

question depending upon mere opinion can be exact, and no given number of men would agree as to what constitutes perfect skill. A diploma is almost *prima facie* evidence of competency, so that the measure of responsibility, in this respect, is liberal to the extreme. But in the country, where the physician is called upon to treat diseases and disorders in both physics and surgery, the comparison of skill with ordinary skill in the profession may involve more hazard to the doctor. The shrewd attorney will inevitably make this comparison with the skilled, practiced specialist. There is an element of unfairness in this. While our courts have not definitely held that such a comparison of skill must be made with the ordinary skill which a particular locality offers, when a case is presented where the doctor is called upon to act in an emergency without opportunity being given to call in consultation a more experienced practitioner, the measure of responsibility will, doubtless, be modified to meet such a condition. But where there is ample time for deliberation and preparation, then the number of similar surgical cases treated by the country physician, his knowledge and application of improved methods, may enter into and make the question of his skill one of fact for the determination of a jury. In a case cited in the law reports, the doctor was led, on his cross-examination, to say that he did not consider himself an expert in surgery. If this take the form of an admission, or be fairly deducible as an inference from his want of opportunity to treat similar cases, and a failure to apply and use the more modern treatment and approved methods, then the question may become one that must be left for the decision of a jury.

The next question is, Did the attending physician exercise his best judgment and use reasonable and ordinary care and diligence in the exercise of his skill ? A bad result is not sufficient of itself to create liability. A physician or surgeon does not guarantee the result of any treatment. He undertakes to possess ordinary professional skill, to exercise this skill with reasonable diligence and care and the use of his best judgment, and this being done, his whole duty is discharged. A bad result may be some evidence of improper care or faulty treatment, but proof must be given of the lack of ordinary professional skill, or a failure to observe reasonable care and diligence or the exercise of sound judgment producing this result.

As stated by our courts the rule is :

A physician assumes to have, and is required to possess, at least,

ordinary professional intelligence and skill, and with his best judgment to exercise it in the treatment of a patient. He is not required to insure results or to guarantee that the consequences will be beneficial. While the responsibility of the medical practitioner and surgeon is great, and care proportionally should be observed in the exercise of his professional employment, when his errors are those of judgment only, if he keeps within recognized and approved methods he is not liable for their consequences.

Mere error in judgment, as disclosed by consequences, produces no liability when there is no departure from a professionally approved line of action. By this is not meant that every skilled member of the profession would or should necessarily adopt precisely the same remedy for a like condition. Such an arbitrary rule would have the effect to unduly qualify the right of exercising judgment required by attending circumstances, temperament, and physical condition of patients, and the complication of diseases and physical troubles involved, but in the main, he should observe and take the benefit of the past experience and learning of the profession and adopt them as the rule of action when practicable rather than new and experimental methods. Much must necessarily rest in the judgment of the attending physician.

The difference of opinion in respect to the propriety of a specific treatment may be one of judgment rather than skill, and, therefore, insufficient to present the question of liability upon the charge of malpractice as one of fact, else it would be difficult to find a cause of unfavorable results from medical treatment which would not furnish a question in that respect for the jury.

To establish negligence, as a rule, there must be a comparison of the diagnosis, history and result of the case in controversy with other similar cases reported, and with the common experience of others learned in the profession and recognized in professional literature. There may be some conspicuous act of carelessness, like a bandage or splint improperly applied ; but the doctor is, after all, the judge of his fellow-practitioner—in the capacity of an expert witness, he gives an opinion as to the commouly accepted and accredited methods of treatment and his judgment of the expected result. And where trustworthy opinion is advanced that there is some neglect or fault, the question ceases to be one of law and becomes a controverted question of fact, which must be submitted to a jury.

I have been frequently asked why, if these cardinal principles are shown to have been sedulously observed by the doctor, his case is not decided by the judge, as a matter of law, and not submitted to the uncertainties of the jury. If this question comprehended all in the case, that would be the inevitable result. The

patient and plaintiff must show an infraction of these well-settled principles, in order to establish any liability, and it is only where the result produced is shown by some evidence to have been occasioned either by lack of skill or want of proper care and judgment that the issue becomes a question of controverted fact and renders liability possible.

It is also to be observed that the same rules and principles apply when the service is gratuitous, and the physician who has undertaken a case may not leave his patient without giving full and ample opportunity to call in some other when he retires.

A novel situation may arise in the future when learned Christian scientists may attempt to justify their treatment of a patient by resorting to the rules of ordinary professional skill; he will have to search diligently outside of the Scriptures for the faith that lies within him. Professional courtesy has shielded many a bungler, but we are all conscious that no man has risen to eminence in the medical profession without years of service and probation, in which there not only may have been, but undoubtedly were, many errors and mistakes; and in remedying the errors and mistakes of the past, the physician has grown to the full measure of his power. It is only by a tolerant, a liberal, a beneficent policy that the medical profession has given to the world its Gross and its Hamilton, and in your midst has produced a Park and a Mynter.

Society Proceedings.

BUFFALO ACADEMY OF MEDICINE.

Stated Meeting, held Tuesday, March 21, 1893.

Reported by WILLIAM C. KRAUSS, M. D., Secretary.

DeLancey Rochester, M. D., President, called the meeting to order at 8.30 P. M., when the following papers were read and discussed:

A CASE OF CONGENITAL ATELECTASIS.

By ALPHONSE DAGENAIS, M. D., Buffalo, N. Y.

Being requested to present a very short paper before this section of the Academy of Medicine, I have selected the report of a case of congenital atelectasis, which occurred recently in my practice, it being the first case of this nature that I have been called upon to

witness. This, or better, the atelectatic condition of the lungs, I have met several times, especially in whooping cough, where stimulated treatment generally overcame the difficulty; but never have I witnessed the symptoms of atelectasis so general, so pronounced, as in this case. I still hesitated to report the case, because of not being able to tell the appearance of the lungs after death, a post-mortem having been refused as usual.

Mrs. G. was delivered of an apparently very healthy child during the month of February last. To all appearances the child seemed strong and well-developed, the labor had been natural, without artificial or instrumental help. In spite of this splendid physical appearance, the child lay quietly, without attempting any muscular movements, and his demeanor indicated a lack of vigor. He never cried, had only piteous moans, most of the time scarcely audible. After the second day he could move his arms, limbs, and head, showing no spinal affections or deformities, no abdominal tumor could be detected which would cause a displacement upward of the diaphragm, no vesicular murmur could be heard with a stethoscope at the posterior and anterior portion of the lungs. The lungs seemed collapsed, airless. A sort of gurgling sound was mostly constantly heard, whether awake or asleep. On about the fifth day the cyanotic condition, observed from birth, became more pronounced; the surface, especially the face, the fingers, and the feet, became cyanotic and the extremities cold. The temperature was normal, but the pulse feeble. The breathing was fast and shallow,—fifty to sixty. Most of the time was passed in sleep. He could hardly nurse. This life lasted fifteen days. Muscular twitchings warned us of the approaching comatose condition, slight convulsions preceded the fatal termination.

We read that congenital atelectasis is not commonly due to any vice or disease of the pulmonary organs, but is produced by any condition which prevents the prompt establishing of the functions of the respiration. In this case it was, no doubt, the result of causes which had been in operation during the intrauterine life of the child, for there was no physical weakness, no premature birth, no compression of the cord—in fact, no common causes of atelectasis. Intracranial effusions might have brought pressure upon the pneumogastric. We are told that when a large tract of lung is disabled, as in the case related, important changes ensue in the organs of circulation. The impediment of the movement of the blood through the lungs results in stasis in the pulmonary artery

and the entire venous system, and leads to hemorrhagic tendencies and edema of the unaffected lung tissue. The same condition also tends to prevent, in congenital cases, the closure of the fetal channels of circulation, especially the foramen ovale, which explain the cyanotic condition of the child.

The treatment in this case was, first, the cutting of the cord without ligature, allowing a certain amount of blood to escape; then hot immersions of the chest with water, to which a small addition of mustard was added ; then alcoholic applications were made, woolen wrappings, minute doses of ipecac, with the expectation of expelling viscid phlegm from the bronchial tubes and producing respiration, but all without any good result.

473 Virginia Street.

GALL-STONES WITH HEPATIC ABSCESS.

By SYDNEY A. DUNHAM, M. D., Buffalo, N. Y.

The fact that these hepatic affections so frequently go unrecognized, until an autopsy is necessary to reveal the real state of affairs, or to confirm a doubtful diagnosis, gives me a reason for presenting this subject for discussion. From reading, observation, and experience upon this subject, I am convinced that the liver, which is the largest and most vascular gland in the body, with more functions than any other, is worthy of our closest attention and study.

My interest in this organ was first excited, when a student, by attending an autopsy held by half a dozen of the older physicians over a man who had been treated for several months by the same number of doctors, for a variety of diseases dependent upon obscure symptoms ; and the causes of death would have been as numerous only for a post mortem, which revealed an abscess of the liver, after the intestinal tract had been carefully scrutinized for suspected disease.

Mrs. W., aged fifty-five, widow, sent for me February 6, 1892 ; she had had digestive disturbances for about one year, food distressed her, bowels constipated, and had lost in flesh.

She gave a history of having had one attack of hepatic colic a year and a half previous, but now the uneasiness was confined to umbilical region with no hepatic tenderness. On February 9th, I was sent for and found the patient with fever following a chill, and the next day a broncho-pneumonia of right lung was evident ; as resolution in the right lung took place, the left lung became involved, and the patient

becoming alarmed, the family physician, Dr. H. Z. Zelrington, of Susquehanna, was sent for. He said the patient had never been treated for liver affection, as she had had no symptoms of hepatic disease.

On the twenty-first day of her illness, the lungs cleared up and the patient was improving; on the second day following, she was jaundiced; on the third day, jaundice increased with clay-colored stools; on fourth day, purpura hemorrhagia, covering entire body except the face, appeared; fifth day, patient the same but weaker; sixth day, suddenly she became comatose, and died the next day.

Post-mortem revealed ruptured gall-bladder, with gall-stones and hepatic abscess. There were no liver disturbances which were noticed or complained of while the lung trouble was present; but when jaundice occurred, the patient wished to lay upon her right side, and said there was a heavy feeling there.

Without an autopsy, the Board of Vital Statistics, or anybody else, would have had any idea of the cause of death.

One day, while at the Buffalo Medical and Surgical Dispensary, I was called out to examine a woman on Broadway. She was large and fleshy, and was suffering from pain in the right hypochondriac region. After an examination and history of the case, I pronounced the trouble neuralgia, the patient a neurasthenic, and told her I could help her.

Later, I was told that the patient was no better, that pain came and went just the same as it had for a long time, and that Dr. Hartwig had pronounced the trouble gall-stones, and wished to remove them, but the patient was not ready for such an operation. She went to the country, and, after a month, the physician there was obliged to open an abscess on the right side, which continued to discharge pus until Dr. Park operated upon her, one year ago last December, at the General Hospital, removing several gall-stones from the gall-bladder. The biliary fistula, which still remains, has been a physiological study for me during the past year. If I did not consider the bile an important agent in intestinal digestion, I would have thought, at times, that the entire amount secreted was discharged from the side, as it was impossible to find dressings sufficient to absorb the amount poured out in one night. At my request, the patient would put on clean dressings before each meal, and four hours afterwards the dressings would hardly be stained with bile, but during the intervals of digestion, when the current of bile is directed to the gall-bladder, there was bile in abundance coming from the fistulous opening.

The discharge has rapidly lessened in quantity and changed in

quality the past two months, and at one time it stopped altogether for a week, but was reopened by vigorous exercise; since then it has been intermittent. The third day after it stopped flowing from the side, the patient was taken with a diarrhea, which was painless, yet the stools were profuse, thin, without odor, and of natural color, lasting three days.

This attack could only be accounted for either by the passage of a biliary calculus, which allowed a free flow of bile into the intestines, or the opening of some new channel into the digestive tract. The purging, I believe, must have been due to the purgative action of the unusual large amount of bile entering the alimentary canal. Since then the bowels have moved regularly without the aid of laxatives, which were before resorted to. At the present time the fistulous discharge is very slight, and we are anxiously waiting for it to disappear entirely. I might make use of a few interesting reports upon this subject.

Dr. Poulsen, in his report of 9,172 autopsies, says that only nine per cent. of the individuals examined, in which gall-stones were found, had exhibited signs of their existence during lifetime.

According to Naunyn, twenty-five per cent. of all women over sixty years of age have gall-stones.

Bollinger found gall-stones in 5.4 per cent. of cadavers; the proportion of women to men was 5.2 per cent.

W. A. Edwards, in the Sacramento *Medical Times*, reported a case of a man dying of pneumonia; the autopsy revealed eighty-eight gall-stones weighing 490 grains. There were no liver symptoms, except fulness in region of gall-bladder.

We are naturally led from the foregoing to the following conclusion: The fact that symptoms are so often wanting in gall-bladder disease, is easily explained when we look for the nerve supply which is so poor that the organ is almost insensible to pain. The ordinary symptoms which we look for and depend upon for a diagnosis seldom appear, but an autopsy reveals the fatal biliary accumulation. While gall-stones remain in the gall-bladder and cystic duct, they give us little inconvenience, and they, as well as hepatic abscess, may go from beginning to end without hepatic disturbances. In order that our death certificates represent what they should to the Board of Health, we should be more like the Frenchman in diagnosis, when it is uncertain during life, settle it afterward by a post-mortem examination.

72 West Chippewa Street.

PHYSIOLOGICAL STRABISMUS.

By JULIUS POHLMAN, M. D., Buffalo, N. Y.

Dr. Pohlman asked to be forgiven for the illogical title, as he would rather have called his paper: Shall We Teach Our Children How To Squint? From a series of examinations he had found reason to conclude that the power of convergence of the eyes did not agree with the power of accommodation as regularly as our text-books teach. He had, so far, found limited convergence in cases of syphilis, alcoholism, and after scarlet fever, with otherwise evenly balanced eyes, and asked the members to aid him with additional observations and explanations on this subject; and if it was finally found that a variety of causes did produce limited convergence in the adult, then it may be worth while to ask the question: Shall we teach children how to squint?

Discussion of Dr. Pohlman's paper:

Dr. A. A. Hubbell: The doctor asks why all persons do not converge to an extraordinary degree. To this I will reply that it is not necessary. To have children practise convergence is, to my mind, bad policy, and leads to permanent squint. I do not yield to Dr. Pohlman on this point. If the child did possess an unusual power to converge the eyes, and practised it, it would surely lead to a permanent result, and, therefore, this practice should be discouraged.

Dr. F. W. Abbott: As to the sanitary effects of straining the muscles of the eyeball, it is very strange to me, and I agree with Dr. Hubbell that it is a bad practice, and is, therefore, unnecessary. The relation between the faculty of accommodation and convergence is one that we pay considerable attention. For easy vision we should be able to accommodate to a point a little nearer than we are obliged to, and also to a point a little further than necessary. I do not see the need of straining the power of convergence or of accommodation.

Dr. J. W. Putnam: Upon the proper balance between the external and internal recti muscles depends in a great measure single vision. The doctor, by encouraging his patients to converge their eyes, exercises the internal recti muscles only. If he also encourages exercise or gymnastics of the external recti muscles, I can see no danger in this proceeding.

Dr. L. Howe: Donders and Landolt have devoted much time to this subject. The power of convergence varies with age. We must all admit that as far as the muscles of the eye are concerned, we are very much at sea. Dr. Pohlman should classify his cases.

Discussion of Dr. Dagenais' paper:

Dr. J. H. Pryor: Did you notice the number of respirations per minute? A. Fifty to sixty.

Dr. M. Hartwig: Was the case delivered with forceps? A. No. If there was no opening of the foramen ovale, then I would consider the case one of syphilis.

Dr. Dagenais: There was nothing to indicate syphilis, nor any history of the disease.

The discussion on Dr. Dunham's paper was postponed to a later meeting.

Pathological specimens were presented by Drs. Pryor and Krauss, Mynter, and McAdam and Krauss.

Cases were reported by Drs. Crego, Mynter, and Hartwig.

Progress in Medical Science.

NERVOUS DISEASES.

By JAMES W. PUTNAM, M. D., Buffalo, N. Y.

PROGRESSIVE MUSCULAR ATROPHY.

Zenner (*Alienist and Neurologist*, January, 1893). In an able paper the author analyzes the symptoms and clinical history of the three types of progressive muscular atrophy—the spinal, muscular, and neuritic.

The spinal, or the Duchenne-Aran type, occurs mostly in middle adult life, most frequently beginning in the small muscles of the hand, and attacks successively other groups of muscles. Its march is very slow. There is atrophy, paralysis, and altered electrical reaction. The reaction is rarely one of complete degeneration.

The muscular form is known as Erb's juvenile atrophy. This type includes the form which usually begins in the muscles of the upper arm and shoulder. It sometimes, also, includes the muscles of the back, and lower extremities. In some cases some muscles are found hypertrophied, notably the deltoids, the infra-spinati, triceps, sartorius, and the muscles of the calf.

It will be seen that Erb puts in the same class juvenile atrophy, pseudo-hypertrophic paralysis, and the facio-scapulo-humeral type of muscular atrophy. These are grouped into the one disease under the term of progressive muscular dystrophies. Of this class the author quotes Erb thus: "Even Erb, in his latest publication on the subject, has expressed the opinion that the muscular disease is due to the changes in the ganglion cells of the anterior cornua, but

changes so slight that the microscope, as yet, does not reveal them."

Of the peroneal type, which is also a disease of early life and, more or less, a hereditary one, he acknowledges that its distribution is the same, as is common in most cases of multiple neuritis, but he believes, with Hoffman, that the neuritis in these cases is secondary to disease of the large ganglion cells in the cornua.

He, therefore, concludes that there is reason to believe that these various forms of muscular atrophy really are due to disease of the anterior cornua, whether that disease be gross or so inappreciable to the eye, that it is termed functional.

ITCHING OF CENTRAL ORIGIN, OR BRAIN ITCH.

Bremer, (*Review of Insanity and Nervous Diseases*, December, 1892,) arguing from Edinger's case of paralysis of the right arm and leg, accompanied by athetosis and by excruciating pain at all times, in whom was found a softened spot in the external nucleus of the left thalamus opticus, accepts the theory that there may be pain of central origin. For how else, he says, will you explain the pain of the hypochondriac or the hysterical, or that of hypnotic suggestion ? The epileptic aura, which may be an itching instead of a pain, he explains as a projection of a cortical irritation on a corresponding area of the skin. He refers to the well-known fact that certain persons cannot hear vermin spoken of without being afflicted with a sensation of itching, which, he says, is brought about by an association process in the hemispheres. He says he has often seen pruritus accompany melancholia, and reports two cases in which it preceded the mental trouble. The pruritus that is so frequently met with in hysteria and neurasthenia is, in his opinion, undoubtedly, a brain itch, and not a peripheral one. He makes a strong plea against the custom of gynecologists of treating pruritus about the vaginal orifice in neurasthenic women.

For treatment he recommends combining bromide (10 to 12 grains) and cannabis Ind. ext. ($\frac{1}{4}$ gr.), three times daily.

He also advocates a warm bath, with a handful of wash soda and a half pound of starch, in an ordinary bathtubful of warm water. Of this he says :

> This simple measure has given better satisfaction than any other in institution treatment when such cases are notoriously often a source of despair both to the physician and patient. Even in strictly central

pruritis it generally acts well, owing, probably, to the sedative effect which the warm bath has on the cortex.

HYPNOTICS.

KAUMHEIMER (*The Review of Insanity and Nervous Diseases*, December, 1892). In an abstract from other authors Kaumheimer quotes :

So much can be said in regard to chloralamid that the conclusion is forced upon us that in this substance we have an agency for the production of sleep which is deserving of our most sanguine expectations. Chloralamid can be used in cases where chloral cannot be used, as, for instance, where there is weak heart in the asthenic stage of acute disease.

On the action of trional and tetronal he summarizes from Schaefer :

1. Trional and tetronal are of pronounced hypnotic and sedative action. Tetronal seems to be more sedative than trional. The action begins within ten to twenty minutes.

2. Trional is a certain and prompt hypnotic, and is indicated in the different forms of neurasthenia, functional psychoses, and organic brain troubles. It does not relieve pain, and is useless in cases of morphinism and cocainism.

3. Tetronal is indicated as an hypnotic in cases in which a moderate degree of motor excitement prevents sleep. Neither can be recommended in the severer psychoses, with violent motor excitement. Doses are from one to two grammes.

No unpleasant effects have been noticed either during administration or after withdrawal. (The great objection to these drugs is their cost : Trional costs a trifle more than sulphonal, and tetronal costs twice as much as trional.)

THE BLOOD IN MELANCHOLIA AND THE EFFECT OF SYSTEMATIC TONIC TREATMENT.

STEELE (*American Journal of Insanity*, April, 1893). A table of thirty-five cases of melancholia shows that anemia was quite marked in most of the cases, and that the average of red corpuscles and of hemaglobin was much below normal. Only one case showed a normal amount of corpuscles and hemaglobin.

Twelve of these cases were selected and put on a special tonic treatment, which included cod liver oil, quinine, and strychnia.

After six weeks the blood was again examined. In six of the cases there was no improvement, either in the quality of the blood or in the mental symptoms. In the other six cases there was improvement in both respects. He draws the following conclusions: That systematic tonic treatment is found markedly efficacious in the treatment of melancholia. The administration of iron by itself, or a combination of iron, quinine, and strychnia, seems to be equally effective. It would appear, also, that although melancholia may not be caused by an impoverishment of the blood, *per se*, such impoverishment almost invariably exists, and, in a large majority of cases, improvement of the mental symptoms is coincident with improvement in the general health and in the quality of the blood.

TWO CASES OF VERY LARGE TUMORS OF THE CEREBRUM.

(*Berlin Klin. Wochenschrift*, No. 29, 1892.) There were two cases operated on by Prof. von Bergmann. One was a mixedsarcoma, and weighed 280 grammes, or nearly half as much as the weight of the cerebral hemisphere, which was assumed to be about 640 grammes. This was shelled out from the right frontal lobe.

Case two was that of a man, aged forty-seven, who had received a blow on the head eighteen months before. The symptoms were those of a tumor of the right motor region. A cystic tumor, which was a portion of an infiltrating cysto-sarcoma, was removed. The tumor was the size of a duck's egg. In addition to this, large masses of the tumor were removed at two subsequent operations. Six months afterward both patients were reported alive.

MOTOR NEUROSES OF THE HEART.

Dr. Jacoby, (*New York Medical Journal*, April 8, 1893,) in an analytical study of this subject—arrhythmia—bradycardia and tachycardia are considered. When arrhythmia is temporary, he believes it to be either a pure neurosis or dependent upon defective blood mixture. If a pure neurosis, it may be a reflex from an irritated stomach or intestines; frequently it is a part of general neurasthenia. It is often due to psychic influences of a depressing nature. Of all causes which he has found most potent in the production of arrhythmias are toxic influences, in the excessive use of tea, coffee, tobacco, and alcohol, associated with sexual excesses.

Of slow heart, or bradycardia, he says: "Whether brady-

cardia ever occurs as a pure neurosis, in the same sense as paroxysmal tachycardia does, is more than doubtful."

In his discussion of tachycardia, he excludes cases of a symptomatic nature, and considers only those of violent heart's action, which occur paroxysmally and without obvious reason. In these cases the patient feels perfectly well in the interparoxysmal period, and no cardiac disease can be discovered. Of its etiology, all that he positively ventures is, that it is a disorder of adult life, and that the best established causes are bodily and cerebral overwork. He does not consider that nervous predisposition, as hysteria and neurasthenia, has any particular influence upon its production.

As to the nature of the affection, he commits himself to the theory that it is a bulbar neurosis; that a case which may begin as a pure neurosis may later become one of organic disease.

He maintains that neuroses are often precursors of organic disease; or, to put it more strongly, that organic disease is sometimes the direct outcome of a functional disorder.

So, in all cases of motor neuroses of the heart, what today is looked upon as a pure neurosis may remain so for a period of time and then get well, or may develop into organic disease. As long as repair outbalances waste, the disease remains functional, and when waste exceeds repair, then we have lesions and organic disease.

EYE PARALYSIS.

Jeffries (*Boston Medical and Surgical Journal*, October 26 and 27, 1892.) The author sums up his conclusions as follows:

1. All cases of lateral conjugate paralysis are of central origin.

2. When the paralysis is on the same side as other paralyses, the lesion is on the opposite side of the brain. Such paralyses, as a rule, are transitory, and follow almost any sudden lesion, and often show themselves as a prevailing position of the eye, and not as a true paralysis or even paresis.

3. When the paralysis is crossed with the paralysis below, the lesion is in the pons-medulla region. The above three are equally true of spasms.

4. A gradual development of conjugate paralyses clearly points to the region of the sixth nucleus of the same side as affected.

5. Paralysis of up or down motions, or both motions, indicate disease in the region of the corpora quadrigemina, but may be due to disease in the third nerves proper at the point of exit.

6. Reasoning from analogy, paralysis of convergence points to disease in the central gray below the aqueduct, but as yet autopsies are lacking.

7. Isolated paralysis of parts of a third nerve strongly suggests central disease, but is not proof of it.

8. A majority of the cases of eye paralysis occur in the syphilitic.

9. A paralysis which changes rapidly, quickly showing fatigue, is probably central in origin.

10. Transitory paralysis in the syphilitic is strongly suggestive of future tabes.

11. An eye paralysis, however simple it may seem, is always a just cause for suspicion of trouble to come, and demands a prompt and thorough examination of the patient.

12. There is no evidence that there is any form of connection between the sixth nucleus and the third, except in the cerebrum.

OPHTHALMOLOGY AND OTOLOGY.

By ALVIN A. HUBBELL, M. D., Buffalo, N. Y.

TREATMENT OF MARGINAL BLEPHARITIS WITH SOLUTIONS OF CORROSIVE SUBLIMATE IN GLYCERINE.

Dr. L. Borno (*The Medical Week*, January 13, 1893,) recommends the application of a solution of corrosive sublimate in glycerine as the best treatment for blepharitis. It is the method employed by Dr. Despaquet, of Paris, in the treatment of this troublesome disease, which is not easily controlled by the ordinary means at our disposal. It consists in painting the outside of the margins of the lids, close to the roots of the eyelashes, with 1-30 and 1-100 solutions of perchloride of mercury in glycerine.

The stronger solution is applied every second day *by the surgeon*, after the eyelashes and scabs have been removed. At the end of each application the part is dried with a piece of cotton-wool. The pain produced by the passage of some of the lotion into the eye is relieved by bathing with cold water, and is much less acute than one would expect from the strength of the solution.

This is due to the fact that, like carbolic acid, corrosive sublimate loses some of its causticity in glycerine.

The 1-100 solution is painted on daily by *the patient himself.*

According to Dr. Borno, the condition of the lids shows a marked improvement from the very first week of the treatment. A cure is obtained within two months even in inveterate cases of blepharitis, with thickening of the margins of the eyelids.

TREATMENT OF TRACHOMA BY EXPRESSION.

Dr. H. Knapp (*Archives of Ophthalmology*, January, 1893,) contributes another communication on the treatment of trachoma by expression with his roller forceps. He sums up as follows :

1. Rapid, perfect, and permanent recovery by expression alone, or expression followed by a short course of mild caustic treatment, takes place in the majority of cases. This refers chiefly to the cases of pure follicular trachoma.

2. Imperfect recovery, *i. e.*, disappearance of trachoma, but having more or less shrinkage of the conjunctiva, is the common issue of old, neglected cases of inflammatory trachoma.

3. Relapses occur in both simple and inflammatory trachoma. They have been recorded in ten cases of the first series, and in eight of the second. The majority of patients came back with a relapse after having felt comfortable and done nothing for their eyes many months after the operation. The relapses were mostly promptly cured by a second expression ; in a few cases a third was necessary. In two cases the steady after-treatment with the copper crystal did not prevent a relapse. They had been treated as out-patients and worked in a dusty atmosphere.

4. The operation has neither destroyed nor injured an eye.

SYMPTOMS OF CEREBRAL IMPLICATION IN OTORRHEA.

G. P. Field, in his lecture before the Harveian Society of London, (*British Medical Journal*, December 17, 1892,) says that the pathology of brain disease, due to otorrhea, is usually quite simple. An outbreak of head-symptoms is usually only the final stage in a long series of insidious morbid changes, of which the patient himself is unaware. The mere accumulation of pus within the tympanum may give rise to symptoms simulating those of basal meningitis. The special sign of actively inflammatory brain lesion from aural suppuration, is pain. Almost universally there are dull achings

over and radiating from the mastoid region, and racking headache. Oscillations between subnormal and high temperature with rigors indicate pyemia. The temperature in uncomplicated meningitis is continuously high, as also in simple aural abscess, in which, however, there are modifications, according to complications present. An abrupt fall in temperature after an initial rise signalizes the completion of the development of an abscess; the temperature then, as a rule, remains at or below the normal.

Other diagnostic signs of cerebral abscess are slow, full, and even pulse, constipation (as in meningitis), sluggish cerebration, respirations which are rythmical, but less in number and extent, and localized paralysis and convulsive movements. In meningitis there is usually delirium, and the pulse is quick, small, and irregular.

Even when the diagnosis is almost certainly that of diffuse meningitis, the perforation of the mastoid cells and tympanic wall and exploratory trephining by Wheeler's operation may be the means of saving life.

EXPLORATORY OPERATIONS FOR INTRACRANIAL ABSCESS FROM AURAL DISEASE.

The Year-Book of Treatment, for 1893, records that Wheeler was the first surgeon to call attention to the desirableness of making one hole in the skull instead of two or three, as practised by Barker and others. Wheeler's plan is, however, to do this by an extension of the necessary mastoid operation, by removing the bone upwards and forwards to get at the middle fossa of the cranial cavity, and backwards and downwards to expose the lateral sinus and posterior fossa. In this form of operation it will be observed that the temporo-sphenoidal lobe and lateral ventricles are explored from a spot which is much lower than that recommended by Barker and Birmingham, for the former recommends that the cerebrum should be examined from a quarter-inch trephine hole, having its center one and a quarter inches behind and above the center of the external auditory meatus.

Truckenbrod (*Monatsh. für Ohrenheilkunde*,) has described a case in which unequivocal signs of cerebral abscess followed otitis media. The operation consisted in chiselling open the left mastoid antrum, and removal of the tegmen antri, which separates the antrum from the cranial cavity, incision of the membranes which were found

adherent to the brain, and exploring the temporo-sphenoidal lobe with a syringe inserted inwards, forwards, and upwards. Pus was found and the opening was enlarged by incision, and drained. The case recovered.

Dean (*Lancet*, July 30, 1892,) operated on a case suffering from headache, drowsiness, and optic neuritis, following chronic suppuration of the middle ear, together with mastoid inflammation. He opened the skull with a three-quarter inch trephine, setting the pin one and a quarter inches behind and a half inch above the center of the auditory meatus. This exposed the lateral sinus below and the dura mater over the temporo-sphenoidal lobe above. These were explored without finding pus. The opening in the skull was then enlarged downwards and backwards by cutting forceps, exposing the dura mater of the posterior fossa. The dura was incised and the cerebellum explored with a trocar, when pus was found and flowed freely. A rubber drainage-tube was inserted and the patient made a good recovery. Dean urges the importance of exploring the different areas likely to be affected when once the skull is opened.

Birmingham (*Dublin Journal of Medical Science*, February, 1891,) has suggested certain guides for trephining for certain areas:

Lateral sinus, one and one-quarter inches behind the center of the bony meatus, and on a level with its upper border.

Temporo-sphenoidal lobe, one and one-quarter inches behind and two inches above the center of the bony meatus.

Mastoid antrum, one-twelfth of an inch above the level and behind the center of the bony meatus ; depth, three-fifths to three-fourths of an inch.

Cerebellum, two inches behind the center of the bony meatus and one inch below Reid's base line. [An imaginary line drawn from the occiput through the center of the external auditory meatus to the lower angle of the orbit.—A. A. H.]

At the Clinical Society of London, Dr. de Haviland Hall reported a case of rhinolith. The stony mass occurred in the left nostril of a girl of sixteen, who had been troubled with a fetid discharge since the age of two and one-half years. The stone had been removed piecemeal by means of forceps, and was found to consist of organic matter, 26.4, and calcium phosphate, 73.6, and weighed 92 grains. Rhinoliths are comparatively rare, and the best account of them is to be found in a monograph by Dr. Max Seeligmann, of Carlsruhe.—*Denver Medical Times.*

Abstracts.

VERTEBRAL FRACTURES.

By JOSEPH KURTZ, M. D., Los Angeles, Cal.

The symptoms of vertebral fractures consist in :

1. Pain ; sometimes a sudden, sharp pain at the seat of the fracture, connected with a sensation of something giving way, and the patient may exclaim, " My back is broken ; " occasionally the pain is not very severe.

2. Deformities ; in fractures of the spinous processes there is always a lateral displacement of the outer fragments, which can be easily seen and felt. The fragments of the lateral processes and arches do not give rise to much deformity, though displaced. But when the bodies are fractured with displacement, we generally notice the characteristic elevation of their spinous processes, forming the kyphosis, which may be aggravated by displacement of a whole vertebra.

3. Paralysis ; complete or incomplete, sensory and motor, which may affect all those parts supplied by nerves arising from below the seat of the injury ; therefore, the higher the fracture, the greater the area of paralysis. The most dangerous is the respiratory paralysis, which results from fracture of the upper cervicals. In fractures of the spinous processes, the medulla usually escapes injury, and no paralysis follows ; the fragments of the other processes and arches generally disturb the medulla more or less, and, accordingly, cause either motor paralysis and hyperesthesia, or only paresis, or severe reflex movements ; or we may observe only the symptoms of concussion. The fractures of the bodies, which so often crush or compress the medulla, give rise to the severest nervous symptoms. Sometimes complete paralysis of all the parts below the seat of injury may set in at once, affecting the bowels and the bladder ; trophic disturbances soon follow, with decubitus, and death is very often desirable to end the scene.

As the symptoms and also the prognosis vary in the different vertebral fractures, I shall now consider the symptoms of these injuries in the various segments of the spinal column :

(*a.*) The upper two cervicals usually break at the posterior arch of the atlas and through the odontoid process of the second. While it was generally understood that these fractures always dis-

locate the head and atlas forward, and thereby sever the medulla, it was recently proved by Gurlt, of Berlin, that such dislocations do not always result. But even cases without much displacement generally end fatally, partially from respiratory paralysis and partially from myelitis. These fractures are usually easily diagnosed by palpation, external as well as through the mouth, where the prominent atlas may be felt in the pharyngeal wall in a line with the septum nares.

(*b.*) Fractures of the rest of the cervical vertebræ and down to the second dorsal are more frequent, and are particularly dangerous by their injury to the phrenic nerve, which is, as a rule, fatal. In all cervical fractures, if they do not end in death soon, we notice a peculiar wave of temperature, perhaps from 100° in the morning rising to 103° in the night; also hyperemia of the face and anemia of the trunk, disturbance of deglutition, speech, and respiration. Priapism is considered a cervical symptom and paralysis according to seat and extent of injury. The mortality in the fractures so far considered amounts to about eighty-five per cent.; the fifteen per cent. who survive frequently suffer with paralysis or paresis if the injury was severe.

(*c.*) Fractures of the bodies and arches of the other dorsals are characterized by the prominence of the respective spinous processes and nervous symptoms in the lower extremities and abdomen, as paraplegia, tympanites, paralysis of rectum and bladder, followed by cystitis and decubitus. About eighty per cent. die, and the twenty per cent. who recover rarely enjoy good health.

(*d.*) Fractures of the lumbar bodies and arches offer relatively the best prognosis, particularly those of the lower vertebræ, on account of their great strength and the absence of the medulla. In the upper two, the mortality is still about forty per cent., with sixty per cent. of imperfect recoveries.—*Southern California Practitioner*, January, 1893.

BOVINE CONSUMPTION AND THE MILK SUPPLY.

Dr. E. F. Brush has paid special attention to the subject of tuberculosis as it appears in cattle, and the danger of milk from tuberculous cows. He states that this disease is much more common in cattle than is generally believed. As the temperature is not sensibly raised, the cow lives a long time, in apparently good health. The milk is not necessarily or at all times contaminated with

tubercle bacilli, but there is not at any time a certainty that it is not so contaminated. Consequently, the child fed on such milk is in about the same danger as an infant that suckles from a syphilitic wet-nurse—infection may or may not occur. The risk, such as it is, should be clearly understood, and those who choose to take their chances do so knowingly. It is to be hoped that these investigations may lead to a reform in the care of milch cattle, whose accommodations are often of the most unsanitary description. As in the human subject, cleanliness, good ventilation, good food, and good hygiene generally, are the best preventatives of bovine tuberculosis.—*Food*, February, 1893.

HEART FAILURE.

Prof. Alfred L. Loomis, M. D., LL.D., read recently before the American Climatological Association a paper on Heart Failure.

He includes all heart failure in three classes :

1. Those in which the heart has for a long time been called upon to perform an abnormal amount of work, as in valvular or arterial disease.

2. Those in which obstructive changes in the coronary vessels markedly diminish the nutritive supply of the cardiac muscle.

3. Those in which toxic influences act directly upon the nutrition of the cardiac muscle, or to interfere with the cardiac nerve supply as to lessen cardiac resistance.

He concludes with this excellent advice, in his summary of his conclusions, as to the lessons taught by the facts demonstrated. He says :

"However we may explain it, clinical observation teaches that some chronic and many acute infections so diminish heart power that sudden heart-failure occurs in hearts that previous to this infection were of normal integrity. It then becomes of the utmost importance, in all toxic conditions, to watch for the first indications of cardiac weakness. On this principle Stokes based his great rule for the use of alcoholic stimulants in the treatment of typhoid fever, when he directed, "that in every case of fever, if the first sound of the heart became indistinct, stimulants should immediately be given in sufficient quantities to restore the heart tone." It is on this principle, also, that strychnia upholds an alcoholic heart in pneumonia, by restoring or increasing its nerve supply. A rule which for a long time has governed me in all

toxic conditions is, not to wait for signs of commencing heart-failure, but to begin the administration of alcohol, strychnia, and other heart tonics early, and thus, if possible, save my patients from fatal heart-failure.

"A review of the cases which I have presented makes it evident that the term heart-failure is misleading and should be abandoned, for, in most instances, it does not express the pathological state. It is equally evident that the term "death by heart-failure" is often used to cover the ignorance of the medical attendants."—*Medical Age*, March, 1893.

THE PRESENT POSITION OF GALL-BLADDER SURGERY.

Czerny, after a general consideration of gall-bladder surgery, presents the following conclusions:

1. Gall-stones require operation, if they cause frequently repeated or lasting trouble.

2. Empyema of the gall-bladder imperatively demands operation, as does hydrops, if it gives serious trouble.

3. The typical operation for gall-stones consists in incision, removal of the stones, and suture of the gall-bladder; in this, however, the abdominal wound should be drained for a short time.

4. If the cystic duct is closed, if the gall-bladder is the seat of inflammation, or the contents are greatly altered, then a temporary gall-bladder fistula must be made.

5. Extirpation of the gall-bladder is indicated only in cases of severe inflammatory carcinomatous involvement.

6. When the ductus choledochus is closed, the operation is absolutely indicated, if the strength of the patient will permit. If one does not succeed in removing the stone or obstruction, then it is recommended to produce a fistula between the gall-bladder and duodenum.

7. The best incision for gall-bladder operations is an ⌋ shaped cut; the vertical limb lies in the linea alba, and the horizontal part runs towards the right, just below the level of the umbilicus.

8. The danger to life of gall-stone operations will be probably less than in operations for vesical calculus.—*Epitome of Medicine.*

BUFFALO MEDICAL AND SURGICAL JOURNAL

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THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

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TOPICS OF THE MONTH.

A BILL introduced in the last Legislature, but which was, unfortunately, buried in committee, known as the Southworth bill, created no little anxiety and worry among patent medicine manufacturers and their greatest friends,—not the people, but the newspapers. The bill conferred upon the State Board of Health the power to analyze and examine all drugs and medicines known as patent or proprietary medicines, and the conditions and regulations under which such drugs and medicines should be sold to the public. As was to be expected, the newspapers, with their usual eye to business, made the greatest remonstrance against this measure, some even going so far as to insinuate that the bill was instigated by jealous practitioners. No one for a moment doubts that if the provisions of this bill could be carried out, the cork and bottom of the patent medicine business would fall out—both at the same time—and "suffering humanity" would be thereby increased, while the public would be proportionately benefited and protected. Medicines whose formulæ will not bear publication will not bear honest trial, and hence they are only intended to deceive and delude mankind at a time when he, above all times, should have honest advice and scientific treatment by a conscientious and intelligent physician. Exactly similar laws are in vogue in countries less highly civilized than our own, and what is good law for them might be good law for us.

THE interesting paper from the pen of Mr. Marcy, on The Responsibility of the Physician to the Patient, Considered from a Legal Point of View, is worthy of most careful attention. Physicians are, at times, careless in the attention and treatment of their charity cases,

and imagine that, because they are not certain of a compensation, their part of the contract can be neglected. It is but recently that a suit of damages was instituted, and carried through successfully, against a prominent Pittsburg physician, who was, perhaps, somewhat careless in his attention to a charity patient.

The following extract from Mr. Marcy's paper should be well borne in mind by physicians who so generously devote their time and skill for the alleviation of the suffering poor:

> It is also to be observed that the same rules and principles apply when the service is gratuitous, and the physician who has undertaken a case may not leave his patient without giving full and ample opportunity to call in some other when he retires.

Too much credit cannot be given our efficient Health Officer, Dr. Wende, for the vigilance and scrutiny which he has shown in protecting the public health interests of Buffalo. His determined fight and ultimate success in every cause that has attracted his attention is remarkable when we consider his opponents in the city's council chambers. The passage of the Tenement-house ordinances is the latest and, perhaps, the greatest victory. In this reform he was ably assisted by Dr. Pryor. Now that they are passed, no one dare doubt of their rigid enforcement.

The Journal would suggest to Dr. Wende the advisability of publishing in its columns a monthly report of the mortality and natal statistics of the city, such as is carried out in Cincinnati and other cities. The Journal would cheerfully publish such reports, and hopes it may soon be able to do so.

A movement is on foot for the erection of an international monument to the memory of Professor J. Ph. Semmelweis, who died in Vienna in 1865. The Medical Society of Budapest has taken the matter in hand, and has appointed an international committee to solicit funds for this purpose. It is proposed to erect the monument in Budapest. The treasurer of the committee is Dr. Elischer, Place petöfi, Budapest, Hungary.

The attending and consulting staffs of the Buffalo City Hospital have resigned as a body. The reason assigned for this action is, that the doctors tried to make it a *private* institution for the public gain, whereas the management persisted in making it a *public* institution for *private* gain.

The common enemy must be getting very formidable and dangerous when the Erie County Medical Society and the Erie County Homeopathic Society meet on common ground to discuss ways and means for his subjugation. It shows, nevertheless, a healthy and a more liberal state of feeling than has existed in bygone days. The meeting held at the Young Men's Christian Association building, Thursday evening, April 20th, was a successful and a timely one, but whether it carried much weight with the political powers that be, is a question which time alone can tell.

The March-April number of the Saint Joseph, Mo., *Medical Herald* is, in every respect, a very handsome and interesting production. It was published as a souvenir edition, complimentary to the Medical Society of the Missouri Valley, and if the society is not sufficiently appreciative of this worthy token of respect, then it certainly ought to disband.

Personal.

Dr. T. F. Dwyer has moved to 89 West avenue.

Dr. F. W. Abbott has moved to 523 Franklin street.

Dr. Herman Mynter has moved to 566 Delaware avenue.

Dr. William H. Pleuthner has returned from his European trip.

Dr. W. S. Tremaine has returned from an extended trip abroad.

Dr. W. H. Heath has moved to the corner of Allen and North Pearl streets.

Dr. William H. Bergtold has been appointed bacteriologist to the Health Department.

Dr. Elmer Starr, whose practice is confined to diseases of the eye and ear, has removed his office to 412 Franklin street, near Virginia. Hours, 9 A. M. to 1 P. M.

Dr. VanderVeer, of Albany, has been nominated by the republican caucus to fill a vacancy in the Board of Regents. A better selection could not have been made, and we trust that the democrats will see the wisdom of this choice and make his election unanimous.

Obituary.

Dr. Edward L. Gager, of Buffalo, died very suddenly of edema of the glottis at the Warsaw Sanitarium, Tuesday, March 28, 1893. Dr. Gager was a graduate of the University of Buffalo, and was thoroughly fitted for his work, but for some reason he abandoned his practice and entered mercantile life a few years ago. His illness was indirectly due to exposure while doing military duty during the railroad strike of last summer.

Dr. William Pierce Seymour, of Troy, N. Y., died at his residence in that city on Friday, April 7, 1893. He was born in Troy, October 17, 1825, and had been a practitioner of medicine in the city of his birth since 1848. He was formerly professor of Materia Medica, Obstetrics, and Diseases of Women in the Berkshire Medical College at Pittsfield, Mass., and of Obstetrics and Gynecology in the Albany Medical College, and the University of Vermont. He was a member of the Rensselaer County Medical Society, the Medical Society of the State of New York, and the American Medical Association.

Dr. Seymour was a man of culture and education, eminent in his profession, and a progressive man in every sense of the word. His loss is a serious one not only to the profession, but to his family and a wide circle of intimate friends and acquaintances. Dr. William Wotkyns Seymour, his eldest son, is also a physician of eminence who will maintain the distinction of the family name. Another son, Mr. Alfred Wotkyns Seymour, resides in Chicago.

Dr. Seymour's funeral was held on Monday, April 10th, and in accordance with the expressed wish of the deceased, the remains were cremated.

Academy of Medicine Notes.

The next stated meeting of the Academy will be held June 20th, under the auspices of the section on Obstetrics and Gynecology.

At the last meeting of the Section on Obstetrics and Gynecology, the following amendment was offered to the constitution: "The election of officers shall occur at the regular meeting in May."

The names of all members of the old societies, now comprising the Academy, who shall not have paid their initiation fee by June 21st, will be dropped from the Secretary's rolls. They can then only be admitted to the Academy through the Council.

A committee, composed of Drs. Hayd, Krauss, and Dagenais, was appointed by the Council to oversee the furnishing of the new rooms. Fellows of the Academy desiring to donate suitable engravings, books, or periodicals, will please confer with this committee.

It is to be hoped that when the Academy is settled in its new home, its membership will be greatly increased. Physicians residing at a short distance from Buffalo should avail themselves of the benefits of the Academy, and spend their Tuesday evenings pleasantly and profitably with the progressive members of the Buffalo profession. The initiation fee for non-resident fellows is $3.00, the annual dues $5.00.

The section on Surgery will meet in the new home of the Academy at its next regular meeting. This section will meet twice during the month of May—May 2d and May 30th. The Section on Medicine will meet June 6th; Section on Pathology, June 13th; and the Section on Obstetrics, June 20th. This change was necessitated by the clause in the constitution stating that the annual meeting of the Academy shall be held one week after the stated meeting in June; consequently, the annual meeting will be held June 27th.

The programme for the next meeting of the Section on Surgery will be on the "Symptomatology and Medical Treatment of Intestinal Obstructions," by Dr. Henry R. Hopkins. Surgical Treatment, by Dr. Roswell Park. Discussion, by Dr. Matthew D. Mann and Dr. Charles G. Stockton. For the May 30th meeting of this section, the subject will be on "Hemorrhoids," by Dr. Edward G. Meyer; "Treatment of Hemorrhoids," by Dr. Edward Clark. This will be the last meeting of this Section until September 5th.

College Notes.

University of Buffalo, Medical Department—Alumni Association.—The annual meeting of the Alumni Association of the Medical Department of the University of Buffalo, will be held on Commencement Day, Tuesday, May 2, 1893. The meeting will be called to order at 10.30 A. M., in Alumni hall of the University building, 24 High street, to listen to the address of welcome, and to transact such business as may properly come before it. At 2.00 o'clock P. M. the association will again assemble to listen to the address of the President and the scientific programme. At 7.30 o'clock P. M. the members and their friends are invited to be present at the commencement exercises to be held in Music Hall.

The annual banquet will be held at the Tifft, at 10.00 o'clock P. M. Members can obtain tickets of the Executive Committee, and it is earnestly urged upon each alumnus to attend, and to contribute to the success of our annual meeting.

The Executive Committee entreats all alumni to enroll themselves as members of this association. The remarkable advancement and success of the university is a benefit to each alumnus, and he should still further show his loyalty to his alma mater by sustaining the good work, by his attendance, his deeds, and his small contributions.

The annual dues ($1.00) should be promptly transmitted or presented to the treasurer, in order that the necessary expenses of the meeting may be honorably met.

ORDER OF EXERCISES.

Morning Session.—Address of Welcome, Prof. Roswell Park. Business session. Election of officers.

Afternoon Session.—The President's Annual Address. Papers and Discussion. The Influence of Marriage on Disease of the Female Sexual Organs, Dr. Paul F. Mundé; The Causative Relation of the Minor to the Major Gynecological Diseases, Dr. C. C. Frederick; The Careless Examination of Urine, Dr. Frederick Stanbro; Remarks on Operative Surgery of the Rectum, Dr. Edward Clark.

At the commencement exercises in the evening, the address to the graduating class will be given by Dr. Paul F. Mundé, of New York.

ALUMNI ASSOCIATION—OFFICERS, 1892–'93.

President, E. R. Hopkins, '77, Silver Creek, N. Y.; First Vice-President, W. C. Phelps, '66, Buffalo, N. Y.; Second Vice-President, Horace Hoyt, '48, E. Aurora, N. Y.; Third Vice-President, Ernest Wende, '78, Buffalo, N. Y.; Fourth Vice-President, E. H. Woolsey, '68, Oakland, Cal.; Fifth Vice-President, P. W. Van Peyma, '72, Buffalo, N. Y.; Permanent Secretary, John J. Walsh, '71, Buffalo, N. Y.; Recording Secretary, F. B. Willard, '90, Buffalo, N. Y.; Treasurer, H. U. Williams, '89, Buffalo, N. Y.

Trustees.—Henry Lapp, '65, Clarence, N. Y.; F. E. L. Brecht, '72, Buffalo, N. Y.; E. C. W. O'Brien, '67, Buffalo, N. Y.; Joseph Fowler, '73, Buffalo, N. Y.; Mahlon B. Folwell, Buffalo, N. Y.

Executive Committee.—William H. Bergtold, '86; Allen A. Jones, '89; Albert H. Briggs, '71; E. R. Hopkins, President Alumni Association (ex-officio); John Parmenter, Secretary Medical Faculty.

The Niagara University, Medical Department—Annual Meeting.—Commencement exercises of the Medical Department of Niagara University will be held on Thursday, May 4, 1893. The programme outlined by the committee is as follows: The Board of Medical Examiners of Niagara University will examine the candidates for graduation at ten o'clock in the morning. At 10.30 A. M., the exercises of the Alumni Association will begin in the lecture room of the college on Ellicott street. Address of Welcome, Professor Alvin A. Hubbell; President's Address, Clarence B. LeVan, M. D.; Business Session; Election of Officers.

Afternoon Session.—Papers and Discussion; Causes and Treatment of Chronic Gonorrhea, J. H. Dowd, M. D., Buffalo, N. Y.; Diarrheas of Children, Edward Torry, M. D., Allegany, N. Y.; Treatment of Chronic Ulcers of the Leg, L. J. McAdam, M. D., Buffalo, N. Y.

At the commencement exercises in the evening, to be held at the Star Theatre, at 7.30 o'clock, Dr. Thomas Lothrop will deliver the decennial address, and the Rev. Thos. Slicer will address the graduates. The annual banquet will be held at 10.00 o'clock, P. M.

ALUMNI ASSOCIATION—OFFICERS FOR 1892–'93.

Clarence B. LeVan, M. D., President, Buffalo, N. Y.; Edgar A. Forsyth, M. D., First Vice-President, Buffalo, N. Y.; Alfred M.

Bayliss, M. D., Second Vice-President, Buffalo, N. Y.; William H. Norrish, M. D., Secretary, Buffalo, N. Y.; John J. Twohey, M. D., Permanent Secretary, Buffalo, N. Y.; E. Eugene Martin, M. D., Treasurer, Buffalo, N. Y.; John M. Hewitt, M. D., Buffalo, N. Y., Albert J. Colton, M. D., Buffalo, N. Y., Linus J. McAdam, M. D., Buffalo, N. Y.; Clarence B. LeVan, President Alumni Association (ex-officio); Alvin A. Hubbell, M. D., Secretary Medical Faculty (ex-officio), Executive Committee.

Society Meetings.

AMERICAN MEDICAL ASSOCIATION.

SECTION ON NEUROLOGY AND MEDICAL JURISPRUDENCE.

Preliminary programme of the annual meeting, to be held at Milwaukee, Wisconsin, June 6, 7, 8, and 9, 1893.

Officers of the Section: Charles K. Mills, M. D., 1,909 Chestnut street, Philadelphia, Pa., Chairman; James G. Kiernan, M. D., 834 Opera House Block, Chicago, Illinois, Secretary. Executive Committee: O. Everts, M. D., Cincinnati, Ohio; H. N. Moyer, M. D., Chicago, Illinois; Justin E. Emerson, M. D., Detroit, Michigan.

The American Medical Association will meet at Milwaukee, Wisconsin, June 6, 7, 8, and 9, 1893. A preliminary programme of the Section of Neurology and Medical Jurisprudence has been prepared and is appended, and it will be seen that the meeting promises to be one of great interest. The first session will be held on the afternoon of June 6th. Two sessions will be held June 7th and 8th, one in the morning and one in the afternoon. The last session will be held on the morning of June 9th. Papers will be accepted for the final programme until May 1st, but not later, as all titles must be sent to the Chairman or Secretary by this date in order to allow sufficient time for the preparation of the programmes for the meeting of the entire Association. If you have not yet indicated your intention to take part, you are earnestly requested to contribute a paper, to present cases, or to exhibit gross or microscopical specimens. It is desired by many of the members of the section to have a dinner on one of the evenings of the meeting, the subscription to which will be $3.00. If you favor this proposition, please notify the Chairman or Secretary of your willingness to subscribe.

Dr. William Osler, Baltimore, Md., Anorexia Nervosa; Dr. Irving C. Rosse, Washington, D. C., Evidences of Paranoia Gleaned from the United States Patent Office; Dr. Harold N. Moyer, Chicago, Ill., Acromegaly; Dr. Henry H. Donaldson, Chicago, Ill., On the Weight of the Brain; Dr. Harriet C. B. Alexander, Chicago, Ill., Paretic Dementia in Women; Dr. Daniel R. Brower, Chicago, Ill., Suggestions on the Treatment of Sclerosis of the Spinal Cord; Dr. Archibald Church, Chicago, Ill., I.—Occupation Neuroses Affecting the Muscles of the Neck. II.—Syringomyelia. Dr. James G. Kiernan, Chicago, Ill., Malpractice in Insane Hospitals; Dr. L. Harrison Mettler, Chicago, Ill., I.—Hemiparaplegia; Report of a Case Completely Recovered after One Year's Duration. II.—Aural Vertigo (Meniere's Disease). Dr. E. S. Talbot, Chicago, Ill., Race Degeneracy and the Jaws; Dr. G. F. Lydston, Chicago, Ill., Remarks on the Therapeutical Use of Static Electricity; Dr. T. H. McBride, Milwaukee, Wis., Thoughts on the Causation of Insanity; Dr. James J. Putnam, Boston, Mass., Recent Discoveries and Observations Bearing on the Subject of Poisoning from Exposure to Arsenical Wall Papers; Dr. Thomas D. Crothers, Hartford, Conn., American Inebriate Asylums; Dr. E. D. Fisher, New York, N. Y., Transverse Myelitis; Dr. Landon Carter Gray, New York, N. Y., What Should Constitute Legal Responsibility, in the Medical Sense, in Insanity; Dr. Graeme M. Hammond, New York, N. Y., On the Proper Method of Determining Whether an Alleged Lunatic Shall be Declared Legally Insane or Not; Dr. Frederick Peterson, New York, N. Y., Care of Epileptics; Dr. Bernard Sachs, New York, N. Y., Syphilis of the Cord Simulating Tabes; Dr. Thomas G. Morton, Philadelphia, Pa., Some Medico-Legal Experiences in Railroad Cases; Dr. Wharton Sinkler, Philadelphia, Pa., Some Points in the Weir-Mitchell Rest Treatment; Dr. James Hendrie Lloyd, Philadelphia, Pa., A Study of Gliomatous Processes in the Spinal Cord (Illustrated by Microscopical Sections); Dr. Francis X. Dercum, Philadelphia, Pa., The Symptomatology of Cerebellar Tumor; Dr. Charles A. Oliver, Philadelphia, Pa., A Study of the Ocular Symptoms in Friedreich's Disease; Dr. Hobart A. Hare, Philadelphia, Pa., Has the So-called Suspension Treatment of Diseases of the Spinal Cord Proved an Addition to our Therapeutics? Dr. J. Madison Taylor, Philadelphia, Pa., I.—Notes on the Treatment of Exophthalmic Goitre. II.—Insanity in Childhood. Dr. Charles W. Burr, Philadelphia, Pa., A Contribution to the Study of Friedreich's Ataxia; Dr. D. D. Stewart,

Philadelphia, Pa., The Diagnosis of Lead Convulsions; Dr. John B. Deaver, Philadelphia, Pa., A Consideration of the Different Trigeminal Operations for the Relief of Pain; Dr. Henry Leffmann, Philadelphia, Pa., Experiences of a Chemist with Delusional Insanity; Dr. Charles K. Mills and Dr. G. E. de Schweinitz, Philadelphia, Pa., Hemianopsia and Certain Symptom-Groups in Sub-Cortical Lesions; Dr. Charles K. Mills, Philadelphia, Pa., Paranoia in some of its Medico-Legal Aspects; Dr. Isaac N. Kerlin, Elwyn, Pa., Early Recognition and Rational Treatment of Moral Imbecility; Dr. Theodore Diller, Pittsburgh, Pa., A Case of Sub-Cortical Cyst of the Lower Part of the Ascending Parietal Convolution—Operation—Recovery; Dr. Frank T. Norbury, Jacksonville, Ill., Insanity of the Aged; Dr. Annette McFarland, Jacksonville, Ill., Gynecology in the Insane; Dr. C. H. Hughes, St. Louis, Mo., Dyspepsia as a Nervous Disease: or, Indigestion in its Nervous Aspects and Relations; Dr. J. T. Eskridge, Denver, Col., Case of Syphilis of the Pia, Simulating Tumor of the Brain; Mono-Spasm and Mono-Paresis—Operation—Death on the Third Day. Dr. H. A. Tomlinson, St. Peter, Minn., The Inadequacy of the Morbid Anatomical Changes Found Post-Mortem to Explain the Manifestations of Insanity; Dr. R. M. Phelps, Rochester, Minn., Degrees of Responsibility as Found in the Insane; Dr. C. B. Burr, Pontiac, Mich., Surgery in the Insane; Dr. T. L. Wright, Bellefontaine, Ohio, The Special Influence of Alcohol on the Body.

Conference of State Medical Examining and Licensing Boards.—The third annual meeting of the Conference of State Medical Examining and Licensing Boards will be held in Milwaukee, Wis., June 7, 1893. The following subjects will be discussed, and we will be glad to have you notify us of your intention to prepare a paper on some one of them, and take part in the discussion of any or all of them. We will also be glad to have you suggest, in advance of the meeting, other subjects you may think it desirable to discuss.

I. The Evolution of State Medical Examining and Licensing Boards. Their present and prospective influence in elevating the moral and intellectual tone of the profession.

II. Composition of Boards. (*a*) The desirable number of members. (*b*) The desirable appointing power. (*c*) The advantages and disadvantages of separate boards representing the different schools of practice.

III. Provisions of the Various State Laws. (*a*) Should the

possession of a diploma from a recognized medical school be a prerequisite to appearing before a board for examination? (*b*) What reciprocal relations should exist between boards? (*c*) Should teachers in medical schools be eligible to membership on State Examining Boards? (*d*) Defects in existing laws, the best law in vogue, the ideal law.

IV. Methods of Conducting Examinations. (*a*) How should the examination be prepared? (*b*) The scope of examinations. (*c*) The minimum and maximum requirements.

HUGH M. TAYLOR, M. D., *Sec'y and Treas.* JOHN H. RAUCH, M. D., *President.*

Eleventh International Congress.—Immediately following the session of the coming Pan-American Medical Congress, a special line of ocean steamships will be at the service of the delegates and all others who desire to visit the Eternal City on the occasion of the Eleventh International Medical Congress, the sessions of which will begin September 24th and continue till October 1st.

The admission fee for the International Congress is placed at the nominal sum of $5; and Dr. A. Jacobi, Chairman of the American National Committee, has volunteered to forward applications and fee for all who may desire him to do so; otherwise application should be made to the International Treasurer, Prof. L. Pagliani, Rome, Italy.

Papers intended for the Congress must be announced on or before June 30th, and a brief abstract of the same, with conclusions, sent to the committee on or before July 31st.

Italian, French, English, and German will be the official languages.

Reduced rates of fare, and facilities for visiting noted localities in Italy, have been provided.

American Electro-Therapeutic Association.—At the second annual meeting of the American Electro-Therapeutic Association, the following officers were elected for the ensuing year:

President, Dr. Augustin H. Goelet, 531 West Fifty-seventh street, New York; First Vice-President, Dr. Wm. F. Hutchinson, Providence, R. I.; Second Vice-President, Dr. W. J. Herdman, Ann Arbor, Mich.; Secretary, Dr. Margaret A. Cleaves, 68 Madison avenue, New York; Treasurer, R. J. Nunn, 119 York street, Savannah, Ga.

The third annual meeting will be held in Chicago on September 12, 13, and 14, 1893. A cordial invitation is extended to all members of the profession interested in electro-therapeutics. Arrangements for special rates on railways and at hotels are in progress.

The Committee of Arrangements will be obliged if those who intend being present at the meeting will send their names, the class and amount of accommodation required, titles of papers to be presented, applications for membership, etc., at as early a date as possible. Accommodations should be secured early, on account of the crowded condition of the hotels, because of the World's Fair. All communications should be addressed to the secretary.

The committee will be glad to furnish any information in regard to the meeting, upon application.

THE COMMITTEE OF ARRANGEMENTS,

FRANKLIN H. MARTIN, *Chairman.* S. C. STANTON, *Secretary.*

THIRD CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.—The first meeting of the Executive Committee of the Third Congress of American Physicians and Surgeons was held December 27th, in Philadelphia. The committee was organized by the election of Dr. William Pepper as chairman, and Dr. Newton M. Shaffer as secretary. The following officers of the Congress were elected: Dr. A. L. Loomis, of New York, president; Dr. W. H. Carmalt, of New Haven, secretary; Dr. John Shaw Billings, of Washington, treasurer; and Dr. S. C. Busey, of Washington, chairman of the Committee of Arrangements. It was decided to hold the next meeting in Washington in May, 1894.

THE Executive Committee of the American Microscopical Society has decided to hold the next meeting of the society at Madison, Wis., beginning Monday, August 14, 1893.

THE American Association for the Advancement of Science has also decided to meet at Madison, Wis., beginning Tuesday, August 15, 1893.

BOOKS RECEIVED.

The Diseases of the Nervous System. A Text-book for Physicians and Students. By Dr. Ludwig Hirt, Professor at the University of Breslau. Translated, with permission of the author, by August Hoch, M. D., assisted by Frank R. Smith, A. M., (Cantab.,) M. D., Assistant Physician to the Johns Hopkins Hospital. With an introduction by William Osler, M. D., F. R. C. P., Professor of Medicine in the Johns Hopkins University, etc. With 178 illustrations. Large octavo, pp. xv.—683. New York: D. Appleton & Co. 1893.

An Introduction to the Study of the Diseases of the Skin. By P. H. Pye-Smith, M. D., F. R. S., F. R. C. P., Physician to the Department of Cutaneous Diseases in Guy's Hospital, London. In one handsome 12mo volume of 407 pages, with twenty-eight illustrations, eighteen of which are colored. Cloth, $2.00. Philadelphia: Lea Brothers & Co. 1893.

Elementary Physiology for Students. By Alfred T. Schofield, M. D., M. R. C. S., Late House Physician to the London Hospital; Special Lecturer, National Health Society. In one handsome 12mo volume of 385 pages, with 227 engravings and two colored plates. Cloth, $2.00. Philadelphia: Lea Brothers & Co.

Modern Gynecology: A Treatise on Diseases of Women, comprising the results of the latest investigations and treatment in this branch of medical science. By Charles H. Bushong, M. D., Assistant Gynecologist to the Demilt Dispensary, New York; formerly Attending Physician to the Northern Dispensary, and Assistant to the Vanderbilt Clinic, College of Physicians and Surgeons, New York. Illustrated. Octavo volume, pp. 380. Price, $2.75. New York: E. B. Treat, 5 Cooper Union. 1893.

Miscellany.

THE PAN-AMERICAN MEDICAL CONGRESS.

OFFICE OF THE SECRETARY-GENERAL, 311 ELM ST.,
CINCINNATI, APRIL 2, 1893.

(*Official Bulletin.*)

The Executive Committee of the First Pan-American Medical Congress promulgates the following information:

1. The first Pan-American Medical Congress will be opened under the Presidency of Prof. William Pepper, M. D., LL. D., President of the University of Pennsylvania, at Washington, D. C., September 5th, and will adjourn September 8, 1893.

2. The countries officially participating in the Congress are restricted to Argentine Republic, Bolivia, Brazil, British North America, British West Indies, (including B. Honduras,) Chile, Dominican Republic, Honduras (Sp.), Mexico, Nicaragua, Para-

guay, Peru, Salvador, Republic of Columbia, Republic of Costa Rica, Ecuador, Guatemala, Haiti, Kingdom of Hawaii, Spanish West Indies, United States, Uruguay, Venezuela, Danish, Dutch, and French West Indies.

Distinguished representatives of the profession from other countries are expected to be present as guests and to participate in the proceedings.

3. The general sessions will be limited in number, one for opening and one for closing the Congress, being all that will be held unless some necessity arises for a change in this particular. This arrangement will permit members to employ all of the time in the scientific work of the sections, which are as follows :

(1) General Medicine, (2) General Surgery, (3) Military Medicine and Surgery, (4) Obstetrics, (5) Gynecology and Abdominal Surgery, (6) Therapeutics, (7) Anatomy, (8) Physiology, (9) Diseases of Children, (10) Pathology, (11) Ophthalmology, (12) Laryngology and Rhinology, (13) Otology, (14) Dermatology and Syphilography, (15) General Hygiene and Demography, (16) Marine Hygiene and Quarantine, (17) Orthopedic Surgery, (18) Diseases of the Mind and Nervous System, (19) Oral and Dental Surgery, (20) Medical Pedagogics, (21) Medical Jurisprudence, (22) Railway Surgery.

The evenings will be devoted entirely to social features, the detailed announcements of which will be made by the Committee of Arrangements.

4. Membership is limited to the members of medical profession of the Western Hemisphere, including the West Indies and Hawaii, who shall either register at the meeting or shall serve the Congress in the capacity of foreign officers. No membership fee will be accepted from any member residing outside the United States. The membership fee for residents of the United States is ten dollars ($10.00). All registered members will receive a copy of the transactions. Prominent students of the allied sciences will be cordially received as guests and as contributors to the proceedings upon invitation by the Executive Presidents of sections. Ladies' tickets will be issued upon application to registered members only, and will entitle the holders to reduced fare and to admission to all entertainments. *Physicians of the United States should register at once, by remitting $10.00 to Dr. A. M. Owen, Treasurer, Evansville, Indiana.*

5. Papers are solicited, the hope being entertained that the

programme will be largely taken up with contributions from outside the United States. Papers may be read in any language, but a copy must be furnished for publication in either Spanish, Portuguese, French, or English, and must not occupy more than twenty minutes in reading. An abstract, not exceeding 600 words, must be furnished the Secretary-General, in one of the above four languages, by not later than July 10th. Abstracts will then be translated by the Literary Bureau into the three remaining languages, and will be published in book-form before the meeting of the Congress.

6. The Congress of the United States has adopted a joint resolution, whereby all the Governments of the Western Hemisphere have been invited by the President to send delegates to the First Pan-American Medical Congress, and has appropriated a liberal sum for the purposes of entertainment.

7. The reduced fare offered by all transportation companies on the occasion of the World's Columbian Exposition, to be held in Chicago, will be open to all persons attending the Pan-American Medical Congress. The Committee of Arrangements will endeavor to secure still greater reduction to members traveling between Chicago and Washington, and an effort will be made to arrange either excursions or circular tours for those who may desire to visit the great universities of the United States. All such arrangements are open to subsequent announcement.

8. By arrangement with the Committee at Rome, the date of the Eleventh International Medical Congress has been so appointed that those who attend the meeting of the Pan-American Medical Congress may subsequently attend the former. The Pan-American Medical Congress will adjourn on the afternoon of September 8th; a steamship will sail from New York on the following day, going by the Azores and Gibraltar, and enabling the tourist to reach Rome on the morning of September 20th, where the Eleventh International Congress will be opened on the afternoon of September 24th. It will thus be seen at a glance that in the period usually allotted to a Summer vacation, the medical tourist may spend a week at the World's Columbian Exposition, the next at the Pan-American Medical Congress, the next week and a half with delightful companions in a voyage to the Mediterranean, the next few days in witnessing the sights of Rome, and in the following week at the Eleventh International Medical Congress. Special reduced rates for members and their families are given both ways

on the trip to Rome, particulars of which will be furnished on application to the Secretary-General, 311 Elm street, Cincinnati, Ohio, who is also a member of the American Committee of the Eleventh International Congress.

9. The best possible arrangements will be made with the excellent hotels with which the national capital is abundantly supplied. The Committee of Arrangements will do its utmost to secure desirable rates and locations for members and their families. The headquarters of the Committee of Arrangements is at the Arlington Hotel, where communications may be addressed either to Dr. Samuel S. Adams, Chairman, or Dr. J. R. Wellington, Secretary.

10. Copies of the official announcement of the Congress, containing the regulations and the names of all officers and committeemen of the General Congress and of the various sections, and residing in the various countries, may be obtained upon application to the Secretary-General, or to either of the members of the International Executive Committee, as follows:

Argentine Republic, Dr. Pedro Lagleyze, Calle Artes 46, Buenos Aires; Bolivia, Dr. Emilio di Tomassi, Calle Ayacucho 26, La Paz; British West Indies, Dr. James A. de Wolf, Port of Spain; British North America, Dr. James F. W. Ross, 481 Sherborne St., Toronto; Chili, Dr. Moises Amaral, Facultad de Medicina, Santiago; Costa Rica, Dr. Daniel Nuñez, San José; Dominican Republic, Dr. Julio Leon, Santo Domingo; Ecuador, Dr. Ricardo Cucalon, Guayaquil; Guatemala, Dr. José Monteros, Avenida Sur No. 8, Guatemala City; Haiti, Dr. T. Lamothe, Rue du Centre, Port au Prince; Hawaii, Dr. John A. McGrew, Honolulu; Honduras (Spanish), Dr. Geo. Bernhardt, Tegucigalpa; Mexico, Dr. Uomás Noriega, Hospital de Jesus, Mexico; Nicaragua, Dr. J. I. Urtecho, Calle Real, Granada; Paraguay——; Peru, Dr. Manuel C. Barrios, Facultad de Medicina, Lima; Republic of Colombia, Dr. P. M. Ibañez, Calle 5a Numero 99, Bogota; Salvador, Dr. David J. Guzman, San Salvador; Spanish West Indies, Dr. Juan Santos Fernandez, Calle Reina No. 92, Havana; United States of America, Dr. A. Vander Veer, 28 Eagle street, Albany, N. Y.; United States of Brazil, Dr. Carlos Costa, Rua Largo da Misericordia 7, Rio de Janeiro; Uruguay, Dr. Jacinto de Leon, Calle de Florida No. 65, Montevideo; Venezuela, Dr. Elias Rodriguez, Caracus.

By the Executive Committee,

CHARLES A. L. REED,

Secretary-General.

MEDICAL DEPARTMENT—NIAGARA UNIVERSITY.

Buffalo Medical and Surgical Journal

Vol. XXXII. JUNE, 1893. No. 11.

DECENNIAL ADDRESS.

DELIVERED AT THE TENTH ANNUAL COMMENCEMENT OF THE MEDICAL DEPARTMENT OF NIAGARA UNIVERSITY, MAY 4, 1893.

By THOMAS LOTHROP, M. D., Buffalo, N. Y.

Professor of Obstetrics and Vice-President of the Faculty of Medicine.

Rt. Rev. Chancellor, Mr. President of the University, and Ladies and Gentlemen:

With the interesting and impressive exercises of this evening we complete the tenth year in the history of this school of medicine. The occasion is one for sincere and hearty congratulation. When, in the course of human events, an epoch is reached which exemplifies the triumph of a principle, in the successful organization of institutions of learning or of beneficence, such occasions may justly be regarded of sufficient importance to call forth congratulatory encomiums for the founders especially, as well as for the community for whose good such beneficent labors were inspired. We regard the decade of years which mark the existence of this school to include one event, at least, in the history of our beautiful city worthy of special note and of generous commendation.

My colleagues have bidden me to give the decennial address at this convocation, in which to portray, briefly, to our assembled guests, the principles which have inspired our labors, and the magnificent results arising therefrom. That this duty should have fallen into other and abler hands would have been the preference of the speaker. To listen, rather than to speak, on an occasion like this, is a modest choice.

The organization and establishment of this school of medicine was the offspring of a necessity. Among the schools of medicine in this State, some of which are sources of pride and admiration to the profession, this school was the last to be legally established. In the medical profession, an agitation has been maintained for many years for higher medical education. This agitation was the natural outcome of abuses within, which finally touched the vital

and sacred interests of the public, and then the yet more precious interests of the family and individual. Through a laxity in the laws of the several States, and the indifference in public sentiment, this country has witnessed the establishment of over one hundred medical colleges, which have turned loose thousands of graduates annually, with degrees legalizing them as practitioners, and with both literary and technical training in one of the most humane and comprehensive of the sciences, so defective and inadequate that the medical profession itself, through its representative men, have called aloud for a reform and for advanced standards. Local, State, and National societies have become aroused to take decided action in favor of higher literary or educational training for admission into the profession, of advancement in the curriculum and period of study, for more rigid examinations for the degree of Doctor in Medicine, and for greater inducements for a higher order of ability, as well as of training, to fill the ranks. The reform sought for came from a recognition of defects existing within. The benefits to be derived from this revolution were to be disseminated to the communities and people without. Until the year 1892, the laws of this State required an attendance only on two courses of lectures, of sixteen or more weeks each, with a certificate from some reputable physician certifying to a study of three years, including the lecture term, without any standard of literary qualifications, and with only such a standard for graduation as an interested faculty might impose. The bars of entrance into the field of medicine were let down, and all the rabble rushed in, without regard to fitness, or quality, or aptitude. The demand for three courses of lectures, in three successive years, assumed a practical shape, for the first time in this State, when Niagara University voluntarily and designedly incorporated into its charter, by special legislative enactment, compulsory attendance for the full three years, while the trustees and faculty, actuated by an honest desire for advanced standards, instituted, and for years maintained, a standard of qualifications for admission to its courses far in advance of the regents' academic diploma or medical students' certificate, which became a law in 1891. In justice to an institution in this State—I refer to Syracuse University—let it be said that the three years' course had been, previously to the enactment of this law, maintained, though not absolutely required by its charter. The course, in that college, extends for a period of nine months in each year, and the instruction is mainly recitative,

rather than by didactic lectures. The graduates of that school have attained a commendable rank in their examinations for license to practise, before the boards of medical examiners in some of the Western States, noticeably in Illinois, which guards the admission of doctors of medicine into practice with greater restrictions than most of the Western States.

With such objects in its organization, strengthened and protected by the incorporation of this principle in its charter, it would be expected, most naturally, that our efforts, at their inception, would have met with encouragement, here and elsewhere, inasmuch as we aimed to correct abuses, the enormity of which were recognized and publicly acknowledged, and also to elevate the profession above the level of a trade, too often prosecuted on commercial principles. It is with regret and chagrin that we state that an unscrupulous opposition arose, from local and interested sources, which endeavored to stamp out the life of this new-born heir in medical education, to destroy this movement for reform, and to nullify its principles, which subsided only when, by special Act of the Legislature, the organic law of the University was placed beyond the powers of its enemies to reach and destroy.

Every sort and kind of reform, in civil as in professional matters, have to pass through an ordeal of caricature, misrepresentation and defamation. This has been the experience of the past and will always be so in the future. The same spirit crops out in the history of individuals as well as of nations. It led John Bunyan to the dungeon, Victor Hugo to exile, Paul the Apostle to the Gentiles, to his beheading, and that great central figure in the birth of Christianity, Christ to the cross. Principles in every great revolution of ideas when based on right in the abstract, have outlived its enemies. In this humble movement of ours we do not find an exception to the teachings of history. The trustees and faculty have aimed assiduously and honestly with unselfish motives and self-sacrificing labors, for the one result, the good of the people, whom the medical profession are educated to serve. This day the school stands the monument of honorable effort and labor, and of elevated aims and purposes, and has earned the reputation, at least, of *primus inter pares*. It is but just in this connection to its faculty to state that their labors thus far have received no pecuniary reward, the income having defrayed only the current expenses of the institution, while the modest and convenient building on Ellicott street, erected in 1884, and sub-

sequently enlarged to meet its growing wants, has been paid for from the private purses of its faculty. We have not appealed to the public for subscriptions for the erection of a building of vaunted classical architecture, of commanding proportions and exterior beauty, basing our appeal on past self-sacrificing labors and on a local pride for the development of an institution which has filled the coffers of its teachers while contributing to the reputation of its votaries. With this brief exposition of the principles underlying the organization of this school, the aims of its founders, and the ambitions for its future, it may be proper to state that its success has more than justified our highest anticipations. Commencing with a class of thirteen matriculates in the autumn of 1883, and occupying, through the kindness of the good Sisters of Charity, for its lecture-room the amphitheater of their hospital, the college has advanced annually in attendance on its lectures, in the thoroughness of its didactic and clinical instruction, until, with the session of 1892-93, over sixty students have sought the excellent advantages it offers. This success has not been the outcome of loose methods, of depreciated standards, and underhanded efforts to beguile the unsuspecting and the unwary. The examinations for promotion to the advanced classes have been thorough and impartial, and the exactions for the degree of Doctor in Medicine have been as severe as the faculty and medical examiners could with justice impose.

The trustees, on the recommendation of a separate board of examiners, selected entirely outside of the teaching force, who are the sole judges of the fitness of the applicant for the honors which the University bestows, have conferred the degree of Doctor in Medicine on sixty-three men whose subsequent career has justified the confidence reposed in their ability and fitness for the responsible duties of the profession. Our alumni are not to be solely judged by their quantity. The quality is the surer index of the excellent work we have tried to perform.

Yielding to the demand of the times and actuated by a purpose to keep pace with the rapid strides in scientific research, the pride of the present century, the leading medical schools in this country have extended the period of study to four years, of nine months each. Harvard Medical College, Columbia College, which has the old College of Physicians and Surgeons, of New York, for its medical department ; the University of Pennsylvania, the oldest and most reputable of the medical schools of this

country; the University of Michigan and Syracuse University, have come up to this standard, and their requirements for admission have also been raised. This school of medicine cannot, with any consistency for its professions, its aims and purposes, long maintain a secondary or subordinate position in a reform so vital to the welfare of the profession and the public. Indeed, while the law of 1891 has compelled all the schools in the State to come up to a three years' course, the position occupied by this school from its very organization, we cannot long maintain, even if we would, an attitude of indifference towards the demands of professional and public sentiment with which the very air is full. We must keep pace with the very best schools in the land, and be in the van-guard of reform, if we are true to the principles proclaimed in our announcement and enunciated in our organic law. Even while placed in the disadvantageous position of requiring a longer period of study than any other school in the State, and, therefore, above and beyond the charge of "catering to an intellectual impatience and a desire for quick and patent results," which a late writer, Mr. Bryce, in his great book on the American Commonwealth, gives as one of the salient intellectual features of our people, the school has acquired a reputation for thorough work, of which all may be proud, while the advantages it offers to the student in medicine in some of its departments are superior to those offered by any other school in the State and in the land. These results have been attained by individual effort, with such aid and encouragement from the parent university and its friends, as they were only too willing to render.

We are anxious to take the advanced step to a four years' course at the earliest possible date. Our city, in its institutions of learning, should not be behind those of neighboring States and Provinces. The Provinces of Canada have set us an example which it would be well to imitate. Not satisfied with the requirements of a four years' course, it is the intention to advance to five years the coming autumn. Their graduates in medicine, some of whom are members of our faculty, show the thoroughness of their training in the advanced position they assume in professional circles in this city. An esteemed medical friend, while visiting recently, Egypt, sent me the prospectus of the medical school at Cairo, under the special guardianship of the government, from which it is learned that a five years' course is required of students in that institution before admitting them to their degree. The

comparison of the exactions of a five years' course, demanded of the disciple of Esculapius in Egypt, who is educated to combat the diseases arising from and peculiar to the river Nile, and the standard of three years only, demanded of the novice in medicine who is expected to meet the unsanitary conditions arising from the Hamburg canal, is not flattering to our Christian civilization. It is proper to state in this connection that the State has raised an additional safeguard for the protection of its people by assuming the supervisory work of examining into the fitness of all graduates to practise medicine, through the State Board of Medical Examiners. Our honored townsman, Dr. W. W. Potter, is an influential member of this Board. This movement is in the right direction, and has had, from its inception, the approval of this school. While the University confers the degree of Doctor of Medicine, the State Board is the sole judge of the fitness of the graduate to practise his profession. We think the people have this protection. We hope that a further advance will be made in the right to the educational qualifications required before entering on the study of medicine, by exacting the academic education obtained by graduating at our High Schools as a minimum.

Under the voluntary system peculiar to this country, our institutions of learning are dependent, mainly, upon private beneficence for their endowment. The wealth of our city has not, thus far in its history, been lavished upon its eleemosynary and educational institutions. Let us commend to our rich men the example of Johns Hopkins, of Baltimore, who gave $7,000,000 to found an university and hospital in that city, from which has arisen one of the most complete institutions of learning, and also the most capacious hospital, in this or any other land; of Rockefeller, of Chicago, whose millions have given to that great city an university of almost unlimited resources; of Leland Stanford, Jr., who, in his lifetime, had set apart $20,000,000 of his vast wealth for educational purposes, to found an university which bears his name, which will raise the intellectual standard in that land of gold, and sunshine, and fruit; of the late Ezra Cornell, whose munificent endowment of Cornell University, at Ithaca, has made that magnificent institution an enduring monument to his sagacity and liberality; of Clark, of Worcester, Mass., whose broad-minded character is demonstrated in the establishment of Clark University, in that city, which will add to the intellectual and scientific greatness of

New England, already honored by the vast endowment and grandeur of old Harvard.

Is Buffalo, which, as a center of commerce, has commanded the attention of sagacious business men, especially during the decade of the existence of this school, to remain in the background as an educational center? Are the cereals of the Northwest, the lumber of neighboring States and Provinces, the coal and the minerals of the Keystone State, which are brought to our city as a most convenient distributing point, to be our only pride and boast? We may affirm, with great emphasis, that a city like ours, the eastern terminus of the chain of the great lakes, and the western terminus of one of the most gigantic enterprises ever undertaken by a State, in its system of artificial waterways, should have higher ambitions and aspirations, among its men of wealth, than the mere accumulation of riches, which, in fact and in deed, are only a trust, and not an actual possession. Our sister city, Boston, has been made the center of intellectual culture and power, through its great schools of letters, and science, and art, established by the first settlers of that noble commonwealth, at Cambridge.

The above are a few examples of a wise disposition of wealth for the benefit of succeeding generations. Is it too much to expect that our city, having reached, in population and material wealth, a position of commanding importance, should now turn attention to the educational and moral improvement of its people? Foundations are already laid upon which to erect, through private munificence, a superstructure as grand as the fair reputation of this beautiful city should command. We beg for a kind remembrance for this school of medicine in the hearts of this people. Unselfish labors, from a body of accomplished and educated medical men, have demonstrated that one of the best-equipped schools of medicine can be maintained here. But we need an endowment to enable us to make the advances to which we aspire, and we feel that we have the right, indeed, that it is our bounden duty, to appeal for a recognition and appreciation of our work from those whose accumulations in commerce have been greater than ours in the profession of our choice.

The future of this important work, in a degree at least, rests with the alumni, who, on account of our youth, are but few, though of increasing influence and reputation. We add to this body this evening a class of ten men, the decennial class, who are admitted to their chosen calling, after a course of instruction

which we regard to be sufficiently severe and thorough to test their capacity and aptitude for their life-work. We hope we have succeeded in impressing upon their minds a high ideal, towards which to direct their ambitious labors. Our curriculum of study comprehends the fundamental principles of the science of medicine, with such practical work at the bed-side as our ample clinical facilities afford. Herein we deal with the effects of disease, or rather of pathological conditions upon our physical organizations. A thorough knowledge of the structure and functions of the body is necessary before such alterations and changes made by disease can be fully appreciated and understood. But in the physical organization of man, the creative power has superadded a higher principle, the "breath of life," the *vis vitæ* a mysterious entity, as high above human comprehension as is the source from whence it came. The thoughtful physician witnesses the manifestation of this life principle on the dust of which the body is composed. Remedial agencies, wisely applied, modify, relieve, or cure morbid conditions into which our bodies fall. But the influence of this higher principle of life on organic matter is a study of increasing interest as experience accumulates. The good physician, therefore, affiliates naturally with him who ministers in spiritual things, and must recognize the intimate relations existing between the material and the immaterial. Let it be said in justice to the pious men who constitute the governing body of this University, that the only restriction they have imposed upon the instruction imparted to the young men in this school is that this department shall not, through its faculty, be the instrument of disseminating unbelief, agnosticism, or any of the materialistic or rationalistic philosophies which flood and curse our land. Over the portals of the operating-room in one of the large hospitals of Europe a celebrated surgeon has engraved the following inscription: "I dress the wound, God heals it." May I hope that this motto, which embodies an everlasting and eternal principle, may be the inspiration of the decennial class which we send forth to-night.

Young men, we have thus far, since you came under our instruction, stood in the position of your fathers in medicine. Tonight we become your elder brothers. You are born into a new life, than which there is nothing on earth higher, and purer, and nobler. We beg you to prove worthy custodians of these sacred trusts, that your lives may exemplify the highest moral and religious principles, and the world be made the better by this your admis-

sion into the noblest profession to which you can consecrate your energies. On behalf of my colleagues, I bid you "God speed," and, in conclusion, will say to each one of you, "Fare thee well."

Original Communications.

THE NATURE OF AND CHOICE OF METHODS IN THE TREATMENT OF UTERINE CANCER.

By Z. H. EVANS, M. D., Traverse City, Mich.

Cancer is like a circle, whose circumference is everywhere and its center nowhere. Cancer thus defined fully explains why our efforts to disintegrate a part of ourselves from ourselves should result in constituting the great opprobrium of surgery, as well as leaving a disease in the world with the proportions of a pestilence. The great difficulty encountered at perfect eradication of cancer is, and always has been, the lacking the idea of the remedy to be inserted into the idea of the disease. Therefore, a knowledge of the etiology of cancer is of paramount importance, and all other questions regarding it are dwarfed into insignificance. The period in which the genius forges the key, and with it unlocks the mystery of cancer, will ever stand alone in its record as accomplishing the greatest good to the greatest numbers, and well can we afford to give up the discoveries of a century for the dazzling picture revealed.

The local elements of cancer have taught us nothing. We must first comprehend the law tabernacled within the elements before we can even hope to explain the origin of cancer. The pathologist has, perhaps, gone a little deeper into pathological changes with his lenses, and the chemist has gone further into matters with his retorts than ever has been accomplished before, but it is a fact, nevertheless, that the cause of cancer remains today as great a mystery as it was in the days of Galen.

The power that creates and authors cell-life has never been placed on the dissecting-table, and touched by the surgeon's knife, nor carried to the laboratory, and there made to yield its pedigree to the genius of human investigators. Finite power becomes weak and lost in the dark recesses of Nature when we try to penetrate into the unrevealed methods of the workmanship of a hand

that is divine. The mysteries of the sidereal world fade into oblivion, when contrasted with that mysterious motor-power that causes cell-life to go into rebellion and become active participants in the performance of a function that is so destructive to human life. Cancer-cells, like the seeds of plants, have a period of development, growth, and decay, but, unfortunately, though they perish they leave behind germs pregnated, and thus they are rendered capable of perpetuating their species, and herein is anchored the difficulty of its successful therapeutical management. The question now before us, naked and deprived of all collateral and advantageous issues, is, What is cancer? Is it in its origin simply a local disease and the constitutional disturbances merely affected? Or, is the starting point in the constitution and the local lesion its results? This is a question of the greatest interest and importance, and, in my judgment, admits of but one distinct reply.

The greatest evil, or the one to be most dreaded, is the huge bulk of the ill-digested, pathological theories that have been put forward from time to time, and by their respective sires taught to explain the origin of cancer. Thus far, unfortunately, all of these theories have utterly failed to stand the test of practical utility in the broad untrammeled arena of clinical experience. These theories are not, however, barren of results, for they have done much towards joining rashness to ignorance. A combination thus effected at once becomes more dangerous to suffering humanity than the diseases from which humanity is suffering. Professor Roswell Park, of Buffalo, N. Y., has, in the New York *Medical Journal* for March 4th, given us a very complete and exhaustive *resumé* of the theory of parasitic cancer; and, at the conclusion of his paper, he says: "You may better appreciate when you recall that my home is in Western New York, in a limited area, where the death-rate from cancer is greater than in any other part of our continent." Dr. Park's predecessor, the late learned Professor Julius F. Miner, with others, shared in the opinion that cancer, like consumption, lupus, leprosy, and scrofula, was nothing more or less than the local manifestations of some one of the many by-products of degenerated syphilis. Therefore, if syphilis is the cause of cancer, then Prof. Park is not only sustained in his statement that the death-rate from cancer is greater in Western New York than in any other part of our continent, but it degrades the Queen City of Buffalo, by crowning her the metropolis of syphilis.

The origin of cancer, according to Cohnheim, that there is but

one way in which it is conceivable that a new growth should arise in the adult, and that is by a portion of embryonic tissue having become arrested in its development during fetal life, and having remained shut off until its dormant capacities have ultimately aroused into activity. Such tom-foolery as this no surgeon can comprehend until he first dispossesses himself of the idea that he is an intellectual being, and to accept such a dogma his mind at once becomes entombed in as great a mystery as the idea that the first man was made in an instant from dust, or the greater Adam was begotten without the aid of an earthly father. These theories that are born and brought into the world by the self-constituted, romancing pathologist, oftentimes appear quite rich in original research, until finally some day clinical experience proves the falsity of the doctrine and then the theory becomes a mere phantom, and its author is converted into a pathological ass, and as such he becomes a show before the surgical world.

Writers upon the subject of cancer can do nothing but to offer material for thought, and if they are honest and fully conversant with its clinical history, they are free to admit that they are discoursing upon a subject of which they have not learning. While it now seems no longer doubted (by a few, at least,) a cancer may become a purely local disease, after the diathesis that first produced the local lesion becomes permanently exhausted, and then the local lesion can assume the role of a benign tumor, deriving its nutrition from the blood previously restored to health in the same manner as other growths receive their nutrition. (I have seen one cancerous tumor thus transformed.) Upon the other hand we oftentimes see what is called a benign tumor grow out of its original condition and take on another. As it rises through and above the condition in which it first existed, it then seems to fall away and dissolve and becomes transformed or modified, and now other elements are added, until sometimes suddenly, sometimes gradually, until finally we see the growth entirely in a new set of circumstances. The original tumor thus transformed is made up partly of the old, but the old so altered as to be almost unrecognizable. At this stage of its development it is not slow in giving warning, by appropriate signals, that it is ready for the struggle, and it commences by first reaching out in all directions and confiscating all the issues in its immediate neighborhood, and converting them to its own aim, which is, broadly speaking, death.

I am, however, clearly of the opinion that all of these so-called

benign tumors that assume a malignant character have had, from their very earliest development, cancerous material tabernacled within their anatomical make-up, only existing to a lesser degree of malignancy. Surgery says that scirrhus is rarely, if ever, encountered in childhood, and never seen in infancy, but it does appear in some pedigrees after the fourth year of life has passed, bordering almost, if not quite, on an epidemic, and how prone it is to attack the uterus and breast as these organs are passing into that condition known as senile repose, is well-known to every surgeon of clinical experience. Therefore, if youth is the only barrier against cancer, our best hope for the future lies, without doubt, in the complete rejuvenation of the cancerous race; and for the accomplishment of this purpose Brown-Sequard has given us the remedy which he calls the *elixir of life* in the substance of squeezed testicle juice. But, though unfortunately for the cancerous race, the only effect the remedy has had when used upon this side of the Atlantic, at least, has been to create abscesses and make *mouthpieces* out of the few who have been foolish enough to resort to its use.

It matters not by what method the local lesion of cancer is destroyed, nor does it matter how rapidly the local wound may have healed, and however flattering may be the temporary restoration of health and strength, the annals of surgery prove that the poor suffering victims sooner or later pay the debt for the sins of their fathers, in death. Granting, for the sake of argument, that cancer is, at first, only a local disease, and only becomes constitutional in its more advanced forms, we now arrive at a point in the discussion of the subject wherein we find ourselves with some of the difficult and perplexing problems that a surgeon is ever called upon to consider, viz., to state at what stage of the disease cancer ceases to become local and assume its constitutional character. There is no such thing as dodging this question. There must necessarily exist a border-line between all normal and abnormal tissue, as there is a border-line between the animal and vegetable kingdom. Schröder once stated his ability of distinguishing, by the touch, with perfect certainty, very small infiltrations, such as occur principally along the lymphatic vessels. Schröder's own operative results clearly prove that, when he made that statement, he was laboring under as great a delusion as the operation of total extirpation of the uterus, for cancer is *barren of permanent results.*

Another difficulty standing in the way of operating early, before the disease becomes a general one, and that is to be able to

diagnosticate malignant from non-malignant affections of the uterus. This is a matter not only requiring the eye of an eagle, but he must be a man endowed by Nature with the assumed touch of a Schröder, as well as possessing the real brains of a Paget, in order to early detect the pathological changes peculiar to each. I admit that the removal of a cancerous uterus is an operative feat peculiar only to the century that is now fast drawing to a close. Neither can it be denied, when I say, that I voice the sentiments of a few at least who say that any surgeon, and it matters not to me who he may be that resorts to the operation of total extirpation of the uterus with the view of curing cancer, where there exists even to a slight degree cancerous material infiltrated beyond the boundaries of the uterus, shortens the life of his victim, and by so doing he becomes a murderer—nay, even worse, for he, by his operation, adds torture to murder. Therefore, I say, in the absence of any known cure for any given disease, it becomes our duty to suffering humanity to select a method of treatment that experience has proven will secure to the patient the greatest number of days, with least possible amount of suffering, and those who do this best serve the interest of those who place their lives, as well as their confidence, in our keeping.

We have, today, three methods of treatment for uterine cancer. First, amputation or excision of the diseased structures by the knife or scissors. Second, actual or chemical cauterization. Third, extirpation of the entire uterus. In comparing these three methods of treatment now in vogue, I shall have nothing to say as to the primary mortality. It is the remote results that most concern us at this time. Dr. W. H. Baker, of Boston, has reported the final results of twelve cases of high amputation for cancer of the uterus. In one case the disease returned in two months; in another, the disease returned almost immediately, while in a third, the patient died in three months after the operation, from cancer. In a fourth, the disease returned in nine months. Six years later, from this report, Dr. Baker states that five of these women were well and free from cancer. Dr. T. A. Reamy has given us his results of fifty-five cases. In fourteen amputations there was no recurrence of the disease within one year; in eight, there was recurrence in two years; in four, there was recurrence at periods varying from two to four years; in twenty, there was no recurrence from two to eight years.

Hofmeier has published a table of ninety-six cases in which partial amputation was done at Berlin. Nineteen of these cases

were living at the end of four years after operation. Pawlick has reported 136 cases of cancer of the cervix, treated at Vienna, by means of the galvano-cautery. Thirty-three of these women were well and free from the disease, at periods varying from two to twenty-one years. Dr. John Byrne, Brooklyn, has reported the final results of 367 cases of cancer of the uterus treated by the galvano-cautery; in thirty-six cases the average periods of freedom from return was eight years and seven months. Thirty remained well over five years. Of the entire number, 367, over one-half remained free from three to eight years.

Hysterectomy.—Fritsch has given us the final results of sixty cases of total extirpation for cancer, and he has been honest enough to tell us that, at the end of three years, he had only two patients alive. Ferrier has given us the results of eighteen operations of total extirpation of the uterus for cancer, and at the end of *two years* only *four* patients were alive. Prof. August Martin, Berlin, has published to the world the results of 214 cases of total extirpation of the uterus for cancer. Of these, Leopold had forty-two; Schröder, forty-six; Fritsch, sixty; and Martin, sixty-six. Out of the entire number, *only five were alive at the end of four years.* Doctor Mary Ann Dixon Jones, Brooklyn, in the *American Journal of Obstetrics* for April, 1893, making use of Martin's report, as quoted above, to appear as though the results obtained favored the operation of total extirpation of the uterus for cancer, says: "Leopold, Schröder, Fritsch, and Martin, out of 214 operations of total extirpation of the uterus for cancer, had, at the end of one year, thirty-five patients living; at the end of two years, twenty-five; and, at the end of three years, twenty." I am a little curious to know why it is that Dr. Jones should only give us the result of these cases for three years, when she could, just as well as not, have given us the report for the fourth year, unless it be that she was afraid that the final report would throw discredit upon the operation so great as to deform the annals of surgery beyond repair, which it does. Again, she says: "Martin, in his late work, out of sixty-six cases" (same number as above quoted), "eleven died under the influence of the operation, thirty-one remained free from recurrence of the disease. This gives, therefore, as a result, seventy per cent. of cures."

Comment is not necessary, for we are told "by their fruits ye shall know them." Again she says: "Langenbeck's historical case —one of the first vaginal hysterectomies performed—lived free

from the disease for twenty-six years after." For the benefit of science and the enlightenment of Dr. Mary Ann Dixon Jones, I will quote briefly from the report of this historical case as given by that scholar, Prof. T. Hawkins-Tanner. He says: "Extirpation of the uterus has been practised on some twenty-six occasions for the cure of cancer, but I am only acquainted with one well authenticated report of its having been really successful, though in four instances the patients recovered from the operation. In the successful case the woman remained well for twenty-five years (not twenty-six)."

But it must be remembered that there was a previous procidentia of the organ, so that the operator, Conrad J. M. Langenbeck, had a comparatively easy task; while, without being hypercritical, *a doubt may be suggested as to the correctness of the diagnosis.* The details of the case given by Professor Max. Langenbeck, in his thesis Ditotins Utero-Extirpation, Göttingen, 1842: "One successful result, however, from a very dangerous operation cannot outweigh a number of failures; failures, be it remembered, implying death within forty-eight hours in fifteen out of twenty-two fatal cases. Hence, it is almost unnecessary to say that *no* practitioner in the present day would be justified in following the example of the elder Professor Langenbeck, Recamier, and Blundell, with regard to this operation."

This protest was written some twenty-five years ago, but it applies today with the same and equal force as it did when it was written. John Williams, London, in 1890, after a thorough study of all attainable statistics, put the average of *permanent cures* at twenty-eight per cent. Schante, Prague, in 1890, estimates forty-seven and one-third per cent. of permanent cures of all cases operated upon for cancer of the uterus and counted after three years. Pozzi, Paris, in 1890, puts the average of permanent cures from forty to fifty per cent. of all cases operated upon.

Any man, or any class of men, who make the statement that they *cure* from twenty-eight to seventy per cent. of all cases of uterine cancer operated upon, is either suffering from general paresis, or they have fallen victims to that incurable disease known as obliquity of intellectual vision. No radical operation should ever be undertaken which does not hold out a prospect at least as good as that *which can* be claimed for palliation. Is this prospect offered by complete extirpation of the uterus for cancer? I say assuredly not, for the operation is extremely dangerous to

life and gives *no* hope of permanent relief, and, therefore, should have no place in surgery.

THE CAUSES AND TREATMENT OF CHRONIC GONORRHEA.

By J. HENRY DOWD, M. D.,

Late House Surgeon Sisters of Charity Hospital, also of United States Marine Department ; Fellow of the Buffalo Academy of Medicine.

Mr. President, Ladies and Gentlemen :

In choosing a subject for my paper, I have endeavored to select one which we meet almost daily in our practice ; especially can this be said of the younger members of the profession, to whom most of these cases apply for treatment. I know of no disease that will cause you more anxiety, and in yourself furnish a subject of neurasthenia quicker, than to have a patient present himself day after day with the same tune, "I am about the same." This, of course, causes you to seek your authority for further advice, which you use most faithfully, only after the lapse of a week or a month to hear the familiar sentence, "I am about the same." You become discouraged, the patient also, and before you are aware he slips into the hands of another.

In regard to specialists in this branch of surgery, or, more strictly, venereal diseases in general, I cannot advise you to become such, although a professor of anatomy in a large London school used to, and probably does yet, say to his class when lecturing on the reproductive organs : "Gentlemen, there is more money made from this region of the human body than from all the rest together." Men have worshiped at the altar of Venus since the world began, and they will undoubtedly worship there until it ends. Venereal diseases are described in the Bible and they will probably exist until the day of judgment. I cannot give statistics, but I am safe in saying that one-third of the gynecological diseases today can be dated from the first connection with one who has erred in his youth, and to this important subject medical colleges usually give one or two lectures a year. The question is often asked, How soon does gonorrhea become chronic ? Any time after five or six weeks. Personally, I believe clap can be cured in less time than that, but after that it may be considered chronic.

The causes of this disease are almost as numerous as the

remedies, and I believe it is folly to apply any remedy until the cause be known, for what benefit can you expect from an injection, let it be ever so strong, or the latest on the market, if a contracted meatus or stricture be present? The first and most important cause of long continued discharge is where the surface is denuded of epithelium and covered with granulations; and this you can see is the first step to stricture. These granulations, projecting as they do into the canal, diminish its caliber, the urine striking this spot is thrown backwards in confusion, causing irritation of the mucous membrane, and from here arises the discharge. Now, allow this to continue for month after month, the deeper structures become involved, the granulations harder, a cicatrix is formed, and stricture is the result. The diagnosis of granular urethra is not always easy, but by a good history, examination of the urine use of the bougie ã boule, and endoscope, it is usually quite possible to locate the trouble at one or more spots. The patient tells you his urine contains threads, or he can feel a drop start, say two, three, or four inches from the meatus and come forward. Now, having him urinate in two separate clean glasses, if the first contains débris, and the second is clear, you may be certain it is the anterior urethra you have to deal with. Our next aid is the bougie, selecting the largest one that will pass the meatus (providing it is not contracted); gently pass it down the canal, noting any spot or spots which may give the patient pain, and measure the distance for further use. The endoscope I will give an opinion of, by quoting from a well-known author: "If one can afford this pretty plaything, the effect is certainly very taking. The glistening tubes, with reflector, lamp and long lines of bright, covered wires, as well as the sensational idea of a light being shed inside the body, has a great moral effect and will, no doubt, do the practitioner no harm if it does not do the patient any good." I will change the last sentence to read: If it does not aid in diagnosis, for I consider the endoscope indispensable in applying treatment.

The trouble being now located, the distance which we previously found must be measured on the endoscopic tube, the latter being passed in until the end rests against the diseased spot. The obturation now being withdrawn, the application can be made. Silver nitrate is probably the best remedy, and can be used in a 1 to 20 per cent. solution, as there is more or less inflammation behind these granulations, and the application causing an acute

one, I order an injection consisting of muriate of hydrastine, grains 10 to 15, to 4 ounces of water, bismuth and glycerine. Usually, one application will suffice, but certain cases may call for three or four, to be made at intervals of two or three days, always increasing the strength of the solution. I will not mention other solutions, for if there is to be any result it will be obtained with silver.

The second most common cause is a contraction, in any part of or the whole length of the canal, thus diminishing its caliber and giving rise to a pathological condition similar to the one already mentioned. The diagnosis of this condition is comparatively easy, for with the eye we see the contracted meatus, with the bougie or Otis urethrometer detect the stricture, and if the discharge is very thick, whitish yellow, and abundant, chronic inflammation of the whole tract is probably present. The meatus, if small, must be cut to an extent sufficient to admit a No. 16 Eng. sound, which should be passed into the urethra. This not only acts as a tonic, but serves to separate the cut surfaces. The patient must be instructed to pass a hairpin (in the way shown) into the urethra in at least twelve hours, to be repeated in fifteen to twenty hours thereafter. Unless this is done, the cut surfaces will be tightly closed in a day or so. If by the use of the bougie stricture is found, this must be cut or dilated. When chronic inflammation exists, the only treatment is the passage of a full-sized sound, leaving it in place for five minutes or more. With the above conditions I always give an injection similar to the one already mentioned.

The third cause is the rough use of instruments and the squeezing to which some patients submit the organ every time they urinate. This should hardly be called a cause, but I consider it sometimes very important, having seen patients who upon being advised to let the doctor do the squeezing, and along with proper remedies, recovered rapidly. Who of you, treating a person for conjunctivitis, would allow him to squeeze and rub his eyes four or five times daily, to see if there was any discharge? I may say no one. Then, have the urethral mucous membrane treated as gently, for it is just as delicate as the conjunctiva.

The fourth condition is inflammation of the lacuna magina, or the numerous pockets along the canal. Our only aid in diagnosis is the passage of a sound, which presses the discharge from these pockets, and on withdrawal of the instrument the discharge

follows. The best and only treatment is the passage of a full-sized sound every alternate day and the use of an astringent injection. A few cases are recorded where the lacuna magina, being found the seat of trouble, has been slit open, thus making an open instead of a closed sac.

The fifth cause is an inflammation of Cowper's, or of the prostate gland with post urethritis. The glands of Cowper when affected will manifest themselves by an enlargement on either side of the perineum posterior to the scrotum. Incision externally, and packing with gauze will eradicate this condition. Prostatitis with post urethritis is not always easy of diagnosis, but certain symptoms point directly to that locality, namely, if a sound being passed causes great pain near the bladder, or if during ejaculation of semen there is pain. If in the course of the disease there has been epididimitis or cystitis, and by pressure on the gland it is tender, the cause may be pretty positively located here. The treatment of this condition is somewhat discouraging, and you can only hope for a good result by long continuation of the same. Counter-irritation to the perineum sometimes acts well. A sound should be passed, and left in for a few minutes, and on its withdrawal the retrojection catheter passed to the neck of the bladder, and from one to two quarts of hot water, impregnated with some astringent, allowed to pass over the entire mucous tract. After this, with a Keys or Ultzmann deep urethral syringe, an injection can be placed in this region. I generally use aristol nitrate, in a 1 to 10 per cent. solution, allowing one or two drops to enter the canal, increasing at each application. This treatment may have to be repeated, at intervals of two or three days, for some time, in the meantime having the patient use an injection, which must be worked well back into the posterior urethra. In this condition, occasionally, good results are obtained by giving tincture cantharides, in two or three-drop doses, three times daily.

Now, let me speak of the prime factor in most all cases, and sometimes the only one. I refer to debility. We all know that twenty-four out of twenty-five cases of gonorrhea apply to a druggist for treatment, or use the favorite prescription of a friend, and what do they use? Simply copaiba and cubebs, which is continued sometimes for months, or until the stomach absolutely refuses to tolerate another drop, or the characteristic copaiba rash appears, thus forcing them to see a doctor, thinking, possibly, they may have syphilis. You find the man with his appetite paralyzed,

so to speak; what food he does take passes through the alimentary canal, untouched by the digestive fluids; bowels in an obstinate, constipated condition; the nervous system in a state of excitement; in short, a good subject of nervous prostration. This condition must be ascertained by the medical man, and treated accordingly by tonics of iron, strychnine, pepsin, good hygienic surroundings, etc. I can call to mind one case of four years' standing, which was cured in three days by iron, pepsin, strychnine, and cascara sagrada; another, of over a year's duration, by cod-liver oil; and a third, by treating the man for his syphilis.

Before closing, I want to speak of one condition which I have met twice in the past three years, and which may be called hyperesthesia of the urethral mucous membrane, and due to ungratified desire. The first case was in a married man who contracted gonorrhea and kept it twenty months. I found a small ulcer one-half inch from the meatus. This I treated by suppositories of aristol and bismuth, the pus discharge stopping in four or five days, but a thin, watery secretion escaping, and a constant itching and tickling sensation along the canal, which continued for some time, or until I advised him to renew his marriage relations, which he did, reporting in two or three days that he was well, and now, in over a year, he has had no return. I suppose he has been doing his duty ever since. I compared him to a person who being fond of a certain article of food which he has not partaken of for some time, suddenly, in passing a hotel or restaurant, the odor from the much fancied article reaches his Schneiderian membrane, and the result is the "mouth waters." I do not wish to infer that the urethral mucous membrane is furnished with the sense of smell (although, as a prominent surgeon remarked, it would be a good thing if it were), but, through the brain, it is kept in an over-sensitive condition unless relieved.

The second case was an almost similar one to the first, but, remember, these cases are few, and where you may be successful in giving such a prescription to one person, to another you may light up his symptoms acutely, or cause some poor female to become an invalid for life by ovaritis, salpingitis, or peritonitis, and even death. It was a true saying which, I think, was uttered by Dr. Joseph Price, of Philadelphia: "Clap kills more people than syphilis, although syphilis is a disease of a lifetime."

COR. BROADWAY AND MICHIGAN STREETS.

IODIDE OF POTASSIUM IN POTTS' PARAPLEGIA.

By SAMUEL E. MILLIKEN, M. D., of New York.
Lecturer on Surgery in the New York Polyclinic.

The paralysis following Potts' disease of the spine is a well-known complication which occurs most frequently when the cervical or upper dorsal region is involved. The general supposition that the paralysis is due to the angular deformity is wrong, as is not only demonstrated by post-mortem examinations, but by the clinical history of the disease. On the contrary, it is due to the pachymeningitis and the infiltration of the surrounding structures which produce compression of the spinal cord. The fact that paralysis occurs only in the course of the trouble when only slight deformity exists, together with a natural tendency toward recovery in cases with great deformity, go to prove the assertion above made. The duration of paralysis is from six to eighteen months where careful mechanical treatment is carried out, but can be much shortened by the administration of increasing doses of potassium iodide.

It should be begun with ten drops of the saturated solution, one or two hours after meals, and rapidly increased to fifty or sixty drops three times a day. Milk is the best medium for administration, but many cases will not require other than a thorough solution with water.

The patient should be kept in the recumbent posture, with perfect fixation of the spinal column by means of a brace or plaster-of-Paris jacket. When the disease is located in the upper dorsal or cervical region, it is well to keep up continuous extension by means of a band around the head or a jury-mast apparatus from the chin and occiput.

Three or four pounds will usually suffice with children, and the weight required to be less at night than during the day.

The mortality from laminectomy is large and it should not be performed until the spine has been subjected to careful mechanical support, with the patient in the recumbent posture and a thorough course of potassium iodide.

157 Madison Avenue.

Rheumatism:

R—Pot. Iodide ..... 2½ drachms,
Tinct. Cimicifuga ..... 1½ ounces.
Vin. Colch. sem ..... 1 ounce.
Fl. Ext. Henbane ..... ½ ounce.
Simple Syrup ..... 5 ounces.

M. Sig. Teaspoonful, well diluted with water, every four hours.

Translation.

CONSTIPATION AND OTHER DISORDERS OF THE LARGE INTESTINE; TREATMENT BY OLIVE OIL ENEMATA.[1]

By Prof. Dr. WILHELM FLEINER, Heidelberg.

(Translated from *Berliner Klinische Wochenschrift.*)

By G. A. HIMMELSBACH, M. D.,

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In all cases of constipation demanding therapeutic treatment, we, as practicing physicians, for obvious reasons aim to accomplish one purpose, that is, to perfect an evacuation of the bowels under most all circumstances. Here I wish to state that very often we meet with two forms of constipation, which, however, are entirely different as to their etiology, and present vastly different appearances. Notwithstanding this they are frequently mistaken one for the other; they, therefore, deserve distinct treatment. I refer to *atonic* and *spastic* constipation.

Atonic constipation is the result of insufficient and too slow peristalsis, a disease, when in young people, is indicative of sedentary habits, and in older people it is usually the consequence of a general atrophy, though very often it is the result of a wasted or atrophic condition of the alimentary tract only.

From this form of constipation are developed a variety of manifold bodily ailments, some of them of little concern; some, however, are very aggravating; and still many people suffering thus may reach a good old age, and enjoy comparatively good health. To produce a free evacuation many people need nothing but dietetic remedies, such as very ripe fruit, honey, cornmeal, coarse rye bread, sauerkraut, and sour milk, or some gentle purgative, which may be used now and then, at varying intervals, in small doses, for many years in succession. To these mild laxatives belong, in first order, rhubarb for adults and manna for children; besides these, tamarind, cascara sagrada, and alöes, in small doses. Many use injections of water, or bathing the parts with cold water. I must also mention the use of massage to the abdomen, (sanitary) gymnastics, and electrical applications to the abdomen.

In all such cases we do not deal with a really diseased body, but only with a functional disorder. Nevertheless, atony may develop

1. Read before the Journal Club, April 28, 1893.

into paralysis (or paresis) by extreme distention of some portion of the intestinal tract caused by retarded fecal matter for several days in succession, or even by gases, the result of which often leads to a catarrhal condition of the mucosa. This last disorder can be seen by examination of the stools, which will be found to be intermixed with slimy matter (mucus); this shows the seat of the disease in the colon, sigmoid flexure, or rectum. In all such cases the stools are drier and more solid than usual, and consist in compressed, irregular, hard lumps (scybala), which still show marks or impressions of the haustris in the colon. These scybala are not formed in the rectum or the flexure, but usually before they move from the colon, or even in the cecum. In such cases the rectum may be free from fecal matter, and an injection of water not high enough will have no effect in dislodging the hard, dry lumps, and not until peristalsis is excited, will the scybala lying in or near the colon be brought down.

In atonic constipation, the abdomen is mostly swollen, but even and smooth in all its parts, but when there is only partial atony of the alimentary canal, and the colon becomes filled with gases and fecal matter, then the abdomen is only partly swollen and quite uneven. Partial atony can be more easily recognized when the abdominal wall is thin and flabby than when the wall is thick and muscular.

This atonic constipation is found in adults as well as younger people, and particularly in girls at the age of puberty ; and, moreover, it is found in children more often than it is believed to be. Kussmaul and myself have investigated and observed a girl, four years old, troubled with atony of the colon, and, besides, almost daily, for months, suffered from stercoral spasms. The fecal matter formed in large lumps, filling the region of the flexura hepatica coli, and pressed against the cecum. Sometimes the swelling disappeared, only to return again and again at varying intervals. After continued observation for some time, we observed cylindrical masses pass from the rectum. This case was cured by the faithful use of massage and the use of oil enemata.

A quite different appearance has that form of constipation, caused by a *spastic* condition of the colon. It manifests itself mostly in nervous individuals and those who are victims of nervous exhaustion, in hypochondriacs, and in women who suffer with uterine disorders.

In treating this form of constipation, caused by contraction of

certain parts of the colon, it must not be confounded with muscular spasm of the sphincter ani, which is so often the case with fissures about the anus; when the spastic contraction is above the sphincter, soft matter is retained, and greatly distends the colon. The constipation to which I refer here is due to retarded hard lumps of fecal matter, held in certain parts of the canal, and are retained there by localized contraction of the gut, instead of propelling them along. To illustrate this spastic form of constipation, I will suggest that most interesting form of spasm and constipation which accompanies plumbism—lead colic.

A spastic contraction of the sphincter ani, without even the presence of a fissured anus, may present appearances of constipation. A patient of Prof. Kussmaul was relieved of his constipation, which was the result of a spastic contraction of the sphincter, for which an American physician cut the muscle in two. After a few months, however, the former contraction recurred and, indeed, extended farther up the rectum, and the patient's successful treatment and ultimate recovery will be given later. The sphincter showed plainly a cicatrix and thickening where the incision was made.

The discharges, in these cases, are of a peculiar kind and quite characteristic; thin as a tape-worm or a pencil, sometimes long, stringy, then, again, in small particles, so much so that the quantity seems insufficient; sometimes there are small cylindrical masses, not larger than a hazel nut, and even much smaller. Not long ago I saw dejections consisting of one cylindrical string, the thickness of a finger, to which were attached dark, firm balls, at regular distances.

The round-looking excrements, however, are not only characteristic of spastic constipation, for they are also found in the atonic or paralytic form, when the fecal matter is retained at the haustris. *A constant appearance of these round masses is certainly a sign of spastic constipation.* Physicians, as well as the laity, at the sight of these small globuled dejections in spastic constipation, fear the existence of an organic stenosis, of a fissured stricture, or of a recent new formation within the rectum. These fears will be removed by a careful examination of the rectum. The spastic constipation may, or may not, be accompanied by a catarrh of the canal.

In opposition to the atonic constipation which sometimes appears as a complication to that form of colitis which presents a

low, asthenic catarrh, I must mention the colitis existing with spastic constipation, and which may be called an irritable form (of the mucosa). Sometimes it is mistaken for colitis membranosa (croupous), a most aggravating affection of the intestine.

In some cases, we observe that the spasm producing constipation is caused by a chemical, thermal, or even a mechanical irritation of the mucous membrane, with subsequent moderate or intense colitis. To these belong, for instance, all those cases that occur after the eating of richly spiced food (pickles), also of too strong laxatives, and especially of the abuse of too drastic purgatives; also, all those cases that follow the rapid cooling off of the body, by sitting on cold stones or moist ground, or in a draught when in a privy.

Any physician who will take the trouble of regularly examining the stools of his patient, will, to his surprise, find the frequent occurrence of this less known spastic constipation, although the atonic is, by far, the more frequent. There are still other forms of constipation in which we find both symptoms, atony and spasm. These may exist side by side (together); then, again, they may exist at different portions of the canal. In some instances, the lower part of the colon is contracted, while the upper portion is atonic and becomes distended by retarded fecal matter and gases.

Massage is of no use in spastic constipation, and is even more harmful than beneficial. The same is true with faradization of abdominal walls, and also the use of drastic purgatives, all of which irritate the intestinal canal. Warm injections of aromatic infusions are here of greater and better use, including chamomile, peppermint, steranis, etc. Sometimes supporting narcotics, such as hyoscyamus and belladonna, improve the condition.

In colica saturnina, opium is of much value and very effectual; however, more efficacious than anything else is the liberal use of oil enemata. In this paper I propose to show the great importance of the use of large oil injections. This method has been practised for years by Prof. Kussmaul, and, indeed, with flattering results. Many physicians have adopted this method in their practice, and, in this way, its use has become quite general. In connection with Prof. Kussmaul, I followed up this method with great success, and, in compliance with his wish, I call it simply the "Oil Cure." I undertook to learn the action of the oil, physically, chemically, and physiologically, and, having arrived at certain con-

clusions, I strongly believe in its value, and many affections plainly indicate this form of treatment.

History of Oil Injections.—The application of oil by rectal injection is by no means a recent treatment. In ancient times olive oil, more especially than other oils, was considered a most valuable remedy. The olive tree was sacred and an object of antiquity. Also in the middle ages olive oil was highly thought of and in general use.

Theodorus Zuingerus says, in his Theatrum Botanicum, page 60 : "Olive oil is quite generally used ; it induces a movement from the bowels."

Praevotius used nothing but olive oil to excite a motion of the bowels of a nobleman, and used a whole pound of the oil for one injection. When the oil is taken per mouth it also has a very beneficial effect, relieving the griping, soothing and healing the internal parts.

Oil enemata are used at the present time in many places. In the clinic at this place pure olive oil is used for injections when the case indicates it. Prof. Erb used it for many years, giving one cupful of the oil, particularly after the use of opium for several days in typhlitis stercoralis.

The beneficial effect of small doses of the oil was known long ago, when one tablespoonful was injected for irritable hemorrhoids, fissures, and rhagaden ani ; also in proctitis and ulcers of the rectum.

Exceptionally do we find the use of oil in large injections, mentioned in modern literature or recent text-books. Professor Kussmaul's attention was first attracted to the use of oil in large injections by a case of the late Dr. Reyher, of St. Petersburg. Through him he learned that large injections of oil softened the solid fecal matter and quieted any irritation of the mucosa. These views are of considerable value and will be referred to later.

Technique of Oil Injections.—In order to carry the oil as far up into the colon as possible, from 400 to 500 c. cm. of oil should be used ; the patient is placed upon his back, his hips lying upon a hard cushion about 20 to 25 c. m. high. This should be covered with an oil cloth to prevent the soiling of other things about. This position removes all pressure from the pelvic organs, besides having somewhat of an aspirating power (Hegar).

In order to avoid thermal and mechanical irritation of the intestinal mucosa, which would tend to interrupt peristalsis, the oil

used must be raised to the body temperature, and must be introduced slowly and gently, with as little pressure as possible ; pressure not to exceed 50 cm. An ordinary irrigator (fountain syringe), filled with oil, and provided with a guttapercha tube, long enough to answer the purpose, should be used. The instrument for introduction into the bowel should be made of hard rubber, bone, or glass, of the thickness of a finger, very smooth, and having an olive-shaped bulbous tip.

The introduction of such an instrument through the anus is very easy, and safer than a thinner one. The olive tip is never caught in the folds or pockets of the mucous membrane ; it glides smoothly over all without hindrance. The introductory piece should be separate, and not a part of the bulk of the instrument, because evil results are sometimes obtained when the instrument is made in one piece. In order to interrupt the stream and protect the rectum from hash manipulation, an elastic rubber tube should be joined to the instrument. The old style instruments (syringe) are very dangerous, and have caused an everlasting ailment and even death. Much to our distress, we still find many families possessing these old-fashioned bulky instruments, and use them indiscriminately among adults and children. Those instruments with pointed mouth-pieces are dangerous; they emit air into the canal. It is not necessary to have instruments with long mouthpieces to carry the oil up high, as long as the sphincter functionates properly, though there may be instances, when stenosis exists, where longer mouthpieces are of value, in order to pass the stricture.

Costiveness of long duration produces ileus ; the sphincter ani becomes so flabby, relaxed, it offers no hindrance to the introduction of a finger or a tube (Kussmaul). But, even in such cases, it is generally a difficult matter to introduce the tube as far as the lowest part of the sigmoid flexure, and beyond this point *cannot be reached* [(?) (translator)]. The flexure certainly can be pushed up by a hard tube, but, by doing so, there is danger of penetrating the walls of the canal, which is distended to its utmost. Simon has called attention to this fact. The oil flows in slowly, and the tube is advanced cautiously. It will take, at least, fifteen to twenty minutes to introduce from 400 to 500 c. cm. of oil. During this time the oil rises in the colon to a considerable height, quite difficult to define, for only in rare cases is the oil heard to splash in some portions of the canal. In a case of dilatation of the colon ascendens this condition was clearly demonstrated, and, for some days after the oil injec-

tions, Prof. Kussmaul and myself could clearly detect the succussion of the oil in the ileo-cecal region.

I hardly think that a single application of a large oil injection is capable of being carried to the cecum, even if we call upon gravitation for assistance, by changing the positions of the patient. We must not feel satisfied that the bowel has received the maximum effect of the oil, even if the dejections have the appearance of fecal matter, commonly found in the small intestine, or even if they contain much bile-coloring matter. We must, therefore, conclude that in order that the oil may produce its effect in the cecum, it must be given every day for several days. Sometimes the end is accomplished the second day; more often, however, it requires three or more days.

Having accomplished a thorough evacuation, the oil injections need not be repeated every day, but only at intervals, also the quantity of oil can be reduced to 250 or 300 c. cm. In local affections of the colon a much smaller quantity of oil will suffice to empty the rectum and sigmoid flexure. A patient is able to take the smaller quantities himself by using an instrument, holding from 100 to 150 c. cm., provided with an olive shaped tip (mouthpiece); with children, from 30 to 50 c. cm. is sufficient.

In these cases an elevation of the hips is not necessary; it requires simply lying upon the back or upon one side. After an application the instrument should be carefully cleansed; water will not do, but with very little difficulty a little alcohol will remove every particle of oil (G. Quincke).

Some Practical Observations about the Action of the Oil.—Clinical observations teach us that a discharge of fecal matter does not immediately follow an injection of oil, when given according to the above rules. It takes one, two or more hours before the first act of defecation—some patients even retain the oil all night—and not until just after the regular morning evacuation, will the oil be seen to come too.

Sometimes in cases where the canal is impacted with hard fecal matter, in order to effect an evacuation within three or four hours, it will be necessary to follow the oil injection by one of water. The fecal matter in the bowel, which is dry and hard, becomes coated with oil after the first injection, and when the oil is retained long enough the excrements become more or less softened.

With the act of defecation a part of the oil will also be seen

to pass, and a part of the oil will be retained in the canal. Injected oil will not leave the alimentary canal at once, but, on the contrary, it takes several days for it all to pass away. It usually comes away mixed with the feces, but sometimes as pure oil, accompanied by gases. Not infrequently from five to ten days elapse before the oil has been entirely removed, and according to the testimony of one of our attendants, it remained in the bowel fourteen days.

When the oil is passed, after retention in the bowel for some time, it shows peculiar changes; most often is the color of the oil changed from a dark yellow to an olive green. Besides the fecal smell, there is sometimes a sour odor and, chemically speaking, a higher degree of acidity, about which I shall refer to later.

When the bowel is greatly filled with fecal matter, it is necessary to give an injection of oil for several days in succession. In such cases after two or three days the stools will be found to be of a soft, doughy consistency, in consequence of the intermixing of the oil, finally, the passage of a stool very thin and doughy, often bile-stained; this condition of the stool is a positive indication that the maximum effect of the oil has been obtained.

Upon the introduction and advancement of the oil, the patient, as a rule, feels nothing. However, after a shorter or longer time, many experience a peculiar sensation in the alimentary canal, which they define by saying "The oil is searching the canal." This sensation increases with nervous individuals so much so, that when the injection is given at night, even their sleep becomes restless. During this time much gas is passed per bowel. People who are troubled with such sensations do well by lying upon their back, as this position has been found to give the desired relief. Then again with others, a full, free evacuation will only give relief; should the distress continue, an injection of warm infusion of steranis will be found effectual.

Doubtless these subjective symptoms (sensations) are the effects of the oil in the canal and the dissolved, softened particles of excrement with the chemical changes resulting; perhaps also by the advance of the oil in the colon and the irritation caused by it.

Selection of the Different Kinds of Oils.—The proper selection of the oil is of importance. These oils are very different according to the quality and chemical composition; it therefore happens sometimes that the physician and patient are greatly disappointed.

In some instances the patient complains of a burning sensation

about the anus, immediately after the application; this may also be in the rectum or even higher up in the abdomen. As a consequence, they cannot retain the oil, but discharge it at once with more or less force. This condition can only be checked by injections of lukewarm water, infusions of chamomile, or steranis; in other cases, there is pinching and griping, with frequent discharges of gases and slimy matter; many patients, therefore, refuse to take a second injection until they are assured as to the cause of the first trouble. A careful investigation of this unhappy result leads us to conclude that neither the method nor manner of application was the cause, but especially the quality of the oil, which is often degenerated. This also induced me to search more carefully into the manufacture of these oils. Zuingern's remarks in the *Theatrum Botanicum* are very interesting. "It cannot be denied that in oils there exists a fatty sweetness, also an alkaline salt, which has the power of dissolving all metals, except gold; for that reason such oil should not be used for injuries to the nerves or bones, unless it is boiled, so that the acids and alkalies are destroyed (decomposed)."

Even today the quality of the oil varies according to its method of manufacture. The finest and purest oil is produced by grinding the olives between two millstones. The compressed cake (residue) is then mixed with warm water and again subjected to pressure; the oil now expressed is a poorer quality, but still a salable product for food, olio-lavato. Other fruits of less value produce the huile fermentée, and the least valuable is the olio-inferno (huile d'enfer).[1]

For internal use only the finer grades of olive oil are worthy of consideration. They should contain triolein, 75 per cent., glycerinäther, 25 per cent. The palmitin and the arachinsaüre congeal the oil. In oils of poorer quality the palmitin and arachin are found in larger proportions. In consequence of the presence of these substances, the oil congeals, or thickens, at about 10° C., while with finer grades of oil, where the tri-palmitin is excluded, the oil will not congeal until 6° C. is reached.

The composition of these oils is greatly affected by climate and soil in which the trees grow, at least the volatile (free) acids are largely dependent upon these. For instance, the California olive oil[2] contains a larger proportion of volatile acids and are, therefore,

1. Flückiger, *Pharmacent. Chemie.*, Berlin, 1888, II., p. 184.

2. Moerk: Zur Kenntniss des Olivenöls verschiedener Herkunft. Jahresberichte über die Forschritte der Pharmacie, von 1889.

very changeable, much more so than with the Italian, French, Sicilian, or Spanish oils.

With the exception of the finest grades of oil, olive oil is generally mixed with rüböl (brassica rapa), möhnöl (papaver somniferum), cotton seed oil (gossypium herbaceum), sesamöl (sesamum orientale), sunflower seed oil and other cheaper oils. The oily substance found in the dark and light mustard contains sulphur. Besides this, it sometimes contains acid sulphuricum, potassium or sodium; these are removed by a process of purification. These adulterations of the oil can be determined according to Flückiger, when the total quantity exceeds that of the pure oil by from five to ten per cent., and according to E. Schmidt, from ten to fifteen per cent.

After long exposure to light, olive oil loses its normal color, and becomes whitish. Copper restores the color again and sugar of lead brings back its sweet taste. The addition of one-half per cent. of absolute alcohol preserves the oil and prevents its becoming rancid.

From these statements we are convinced that many oils are modified for the sake of commercial gain. Rotten oils are improved by the addition of certain chemicals, or pure oils are mixed the with other worthless oils. The use of these poor oils will irritate mucous membrane, instead of mitigating and soothing any soreness or irritation. We must, therefore, use the best and purest oils.

The first expression of both the möhnöl (ol. papaveris) or sesamöl are quite equal to a good grade of olive oil. A degree of acidulation of from forty to fifty-five is well borne by the intestines. Oil from the second expression is not as good as the first and should not be given by any physician.

In commerce when we ask for olive oil we are supplied with ol. papaveris or ol. sesamum orientale; we should, therefore, always ask for the first expressed oil.

Should any irritation of the intestinal tract arise, as the result of an oil injection, the cause will be found to be in the quality of the oil used.

Cool Baths in Typhoid.—Dr. Juhel-Rénoy believes that the introduction of the cool bath into the hospital treatment of typhoid fever has reduced the mortality at least five per cent., and cites figures in support of his opinion.—*American Therapist.*

Abstracts.

THE NERVOUS AFFECTIONS THAT MAY ARISE FROM MALARIA.

By WILLIAM BROWNING, M. D., Brooklyn, N. Y.

Of the various toxic agents, including thereunder infections as well as purely chemical poisons, that often attack the nervous system, malaria is one of the more common, the relative frequency, however, varying greatly with time and place. These parallel causes produce more or less comparable series of cases.

By malaria I mean not simply mal-aria, or bad air, but a distinct and infectious disorder.

It is especially in the larvated and chronic forms of intermittent poisoning that the nervous system becomes prominently involved. In such cases the patient may seek advice for the nervous affection simply. The true cause can then only be arrived at indirectly, and often one feels the lack of safe clinical guides. The blood-changes that in typical ague may be utilized for certainty in diagnosis, are, so far as we know, not present, or at least not easily demonstrated here.[1] Where exacerbations or remissions occur, the diagnosis is much assisted; but for the most part these are continuous conditions, and many of the manifestations are of secondary origin; hence the personal equation of the observer may affect somewhat the trustworthiness of the etiological diagnosis. Many of the severest cases seen in Brooklyn have contracted their infection elsewhere; still those of home origin are ample in number and variety.

Though no recent or comprehensive review of this subject seems to have been made, it is customary and convenient to classify such cases according to the part of the nervous system specially attacked.

A. Brain.

B. Spinal Cord.

C. Peripheral Nerves.

A. The brain troubles attributed to this cause include: Intracranial inflammations of a meningitic type, mental disorders, pig-

1. In Da Costa's severe case, ("Malarial Paralysis." *Internat. Clinics*, Oct., 1891,) characteristic forms were found.

mentary deposits,[1] epilepsy, chorea, aphasic symptoms, hysteria (Regnault's case, Gaz. des Hôp., 1890, No. 3), neurasthenia and hystero-neurasthenia (Teissier's two cases, *Bull. Med.*, Paris, 1890, iv., 397-9).

. . . . . .

B.—SPINAL TROUBLES.

It is not as yet established that these are ever of malarial origin, although Morton Prince, of Boston, (*Jour. Nerv. and Ment. Dis.*, 1889, Oct.,) believes it for certain cases of tabes and disseminated sclerosis. Torti and Angelini have also recently described chronic malarial infection with symptoms of sclerosis en plaques. In this respect the paludal poison is comparable to alcohol. It affects preferably the peripheral nerves, but in many cases the brain is either also involved to a limited extent or may alone suffer. For some unexplained reason the cord seems to have a remarkable immunity of both these agents. In various spinal cases one finds a past history of malaria, but not closely enough connected with the myelitis to be considered the cause.

It has been suggested that cerebro-spinal meningitis might be of miasmatic origin. A boy of five years, living beside Gowanus Canal, seen with Dr. Maddren in April of this year, was sick several weeks with variable fever, general tenderness, distinct opisthotonos, etc. He did best on anti-malarials, and finally recovered, but it was not a clear case. Dr. Bartley gives the following notes of a more definite case in a boy of three years: He was seen by several competent men and considered to be suffering from sporadic cerebro-spinal meningitis. There was wry-neck, pain on motion of head, tenderness along post-cervical region and on percussing over the spleen, low fever, tache cerebrale, anemia, etc. Under quinine he recovered completely in a week. In such forms as this there can only be a pseudo-meningitis, but its occurrence may explain some of the so-called sporadic cases.

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C.—PERIPHERAL NERVES.

Of this class are a majority of the nerve cases from malaria as seen in general practice. Most of these fall under one of two

1. The question of pigment emboli and deposits is essentially one of pathology, though Hammond (Trans. Am. Neurolog. Assoc., 1875,) and others have sought to deduce their clinical bearing. Councilman and Abbott (Am. Jour. Med. Sci., 1885, April,) have described these in connection with hyaline bodies, but interest of late has shifted to the subject of microörganisms.

clinical types: (*a*) Neuralgia, (*b*) Neuritis, although (*c*) Contractures, and (*d*) Paralysis appear also to occur as independent manifestations.

That neuralgia is frequently due to this cause is so well known that, though a very important fact, it need be but briefly considered. In neuralgia remissions are the rule, whilst in neuritis any such feature is necessarily obscured. Doubtless the neuralgia is often but the first stage of neuritis. Whilst, perhaps, any nerve in the body may be attacked, there are certain favorites. Amongst neuralgias brow-ague and sciatica are best known, though in Brooklyn, at least, other forms are common. One case of severe cruralgia (left anterior) was in a night engineer employed in the basement of a New York printing establishment (seen in January, 1888; has remained free since). Visceral neuralgias, taking the form of colic, are often very severe, as in a recent case contracted in West Florida. Another form in a colleague (living on the line of the great storm-sewer excavation) was located by him deeply beneath the bridge of the nose, and a lighter similar case might be added. Various headaches, more or less migrainous in character, are common, and, unfortunately, these may continue later as a less frequent hemicrania or migraine. In one case, (wife of the just-mentioned colleague,) where the brachial plexus with the arm-nerves was the seat, tender points became established at neck, shoulder and elbow. In the preradial region the pain became especially severe. Reddish papules, with incipient ulceration, appeared over the ball of the thumb, and a couple of the former even up the arm. This cutaneous trouble was possibly herpetic in its nature. The whole yielded promptly to systemic remedies.

. . . . . .

In conclusion, it may be well again to remark that malaria is but one of the various causes of nervous diseases. There is a justifiable aversion to the over-frequent assumption of a malarial influence; still this need not blind us to present facts. A more careful scrutiny of our cases may show that at certain times, and in certain places, these nervous manifestations from malaria are far from uncommon.—*Brooklyn Medical Journal*, January, 1893.

Goodell says: A nervous bladder is one of the earliest symptoms of a nervous brain; for nervousness means a deficient control of the higher nerve centers over the lower ones; the vesical irritability indicates a lack of brain control.—*Practitioners' Monthly.*

ARE ASYLUM PHYSICIANS PARTY PENSIONERS?

(From the *American Journal of Insanity*, April, 1893.)

The notion that public officers are the pensioners of a party, not the servants of the whole people, seems to die hard. The prospect appears to be that the officers of all the hospitals for the insane of the State of Illinois will be turned out to make room for members of the political party which, after an outing of thirty-five years, has once more gained the upper hand. It is true that the present Governor, in his canvass, made charges of extravagance and mismanagement against those institutions, but we presume that no one will seriously maintain that a lack of confidence in their management is the only, or even the principal, reason for so sweeping a change. It is also true that, so far as one wrong can justify another, the course of the Republican party, during the long period of its dominance in the State, has afforded an excuse for such a course. Only Republicans have been appointed on the boards of trustees, and we understand that the officers of the hospitals have been regularly assessed a portion of their salaries for the campaign funds. It is not long since the superintendent of the hospital at Anna was driven out of office with little or no pretense of concealment of the fact that the ground of his dismissal was his lukewarmness in partisanship, and, from all that we can learn, his successor has not erred in that direction, although his attainments as an alienist have not, we believe, even yet earned him any very wide celebrity.

We do not suppose that if a member of Governor Altgeld's family were to become insane, and he were looking for a suitable private hospital, it would ever occur to him to enquire into the physicians' views on the tariff. We have no doubt that multitudes of those who will applaud his action in this matter, or take it as a matter of course, employ, by choice, physicians of a different political faith from their own in their families, and would laugh at the idea that a man's political views have anything to do with his professional competency. It is the view that the salaries of these officers are not, primarily, the reasonable compensation for honest and faithful discharge of their duties, but the reward of activity in an entirely different field, that allows people to view with approval or indifference such changes, entirely without regard to the merits either of those who are turned out or those who are put in.

The pernicious effect of such a policy is so plain that we should

feel as if we were insulting the intelligence of our readers by arguing the question. Men whose aspirations are for professional eminence and usefulness will hesitate about accepting positions in which such qualities count for nothing. Even if competent men are secured, they are sure, in a State in which parties are pretty evenly balanced, under such a system, to be turned out before they have acquired the experience that will enable them to do their best work. The inevitable tendency, under such conditions, is to the filling of the offices by men whose only object is to make money out of them, and who, knowing that the time is short, will "make hay while the sun shines."

We have no doubt that, in time, the mischief of treating the funds provided for the relief of the unfortunate as plunder will become so plain that it will be no longer possible in a government like ours. But we fear that a good many object lessons will be needed first, and in the meantime the insane must suffer. We shall be as much surprised as gratified if the medical profession of Illinois, without distinction of party, shall denounce the iniquity as it deserves. In the meantime, we believe it is the right and the duty of the American Medico-Psychological Association to scan critically the qualifications of the men who profit by the misfortunes of its honored members, should they apply for admission.

THE MANAGEMENT OF SUPPURATION COMPLICATING TUBERCULOUS DISEASE OF THE BONES AND JOINTS.

By V. P. GIBNEY, M. D., New York.

In concluding this desultory paper, let me summarize as follows:

1. Protect the joint, about which the bone lesion exists, in the early stage and in the later stages, whether the abscess is let alone, aspirated, or incised.

2. In cases where the suppurative process is confined to a small area, it is good surgery to leave the small abscesses alone if the protective appliance is adequate.

3. It is good practice to aspirate where the abscess is in the way of the proper adjustment of apparatus, and by such procedure one may expect good results in at least fifty per cent.

4. The simple incision of an abscess dependent upon bone disease depends for good result upon the extent of the bone lesion.

5. Excision of the hip is not a measure to be employed in all cases where extensive suppuration exists, but must depend largely upon the condition of the patient and the location and extent of the abscesses.

6. Expectant treatment for the knee and ankle joint in children yields the best results for life and limb.

7. Amputation of the ankle in a child is rarely ever justifiable; of the knee is justifiable only when amyloid disease of liver or kidneys threatens, or is present; of a hip, after a thorough excision has failed.

8. The long continued employment of a good fitting splint to the back in Potts' disease of the spine, will yield better results than any operative procedures on the bone with which I am familiar.—*Southern Medical Record.*

THE ADVANTAGES OF A PHYSICIAN DISPENSING HIS OWN MEDICINE.

By CARYL B. STORRS, M. D.

This is a subject which has been discussed to a great extent, both pro and con, for a long time. The principal reasons which have been given in favor of every physician being his own druggist, may be mentioned as follows:

1. To make a physician more independent.

2. On account of the habit of substitution prevalent among certain druggists.

3. To make sure of exhibiting pure and fresh drugs.

4. To prevent refilling of prescriptions without the physician's knowledge.

5. To show his disapproval of the practice of counter prescribing and the selling of patent medicines.

6. To center the pecuniary profits upon the physician.

7. To assure cleanliness in the preparation of medicines.

8. To educate the doctors to practical pharmacy.

9. To inspire confidence in the patient.

10. To check the growing use of proprietary medicine by the profession.—*The Medical Age*, March, 1893.

DUBOISINE IN PARALYSIS AGITANS.

Prof. Mendel, of Berlin, (*La Semaine Médicale*, No. 10, 1893,) has obtained a notable diminution of the tremor, in cases of paralysis agitans, from the hypodermic injection of duboisine, in doses of two to three decimilligrammes ($\frac{1}{3}\frac{1}{6}$ to $\frac{1}{2}\frac{1}{0}\frac{1}{0}$ gr.) He tried it in

twelve cases; in none of them did the drug fail to act. A quarter of an hour after injection the trembling of the hands diminished, so that the patient could write legibly; walking also became easier. The sedative action lasts from three to five hours, with the same dose repeated. In this manner a paralytic with three injections is able to pass a day without violent trembling. An evening injection will enable a patient with insomnia to sleep the night through. Its action upon the patient's speech varies; sometimes it is favorable, then again the contrary. He regards duboisine as the most efficacious remedy for the tremor of this disease. It has the advantage over hyoscine of being less toxic and more efficacious.—*Cincinnati Lancet-Clinic.*

SOME REASONS FOR DAILY EXERCISE.

1. Any man who does not take time for exercise will probably have to make time to be ill.

2. Body and mind are both gifts, and for the proper use of them our Maker will hold us responsible.

3. Exercise gradually increases the physical powers and gives more strength to resist sickness.

4. Exercise will do for your body what intellectual training will do for your mind—educate and strengthen it.

5. Plato called a man lame because he exercised the mind while the body was allowed to suffer.

6. A sound body lies at the foundation of all that goes to make life a success. Exercise will help to give it.

7. Exercise will help a young man to lead a chaste life.

8. Varied, light and brisk exercise, next to sleep, will rest the tired brain better than anything else.

9. Metal will rust if not used, and the body will become diseased if not exercised.

10. A man "too busy" to take care of his health is like a workman too busy to sharpen his tools.—*Glasgow Herald.*

Curious Facts.—The year of greatest growth in boys is the seventeenth, in girls the fourteenth. While girls reach their height in their fifteenth year, they acquire full weight at the age of twenty. Boys are stronger than girls from birth to the eleventh year; then girls become superior physically to the seventeenth year, when the tables are again turned and remain so.—*Ex.*

New Instruments.

A SHIELD TO PROTECT THE CLINICAL THERMOMETER.

By Herbert U. Williams, M. D., Buffalo, N. Y.

This device is intended to protect the thermometer while it is being held in the mouth so that it may not be bitten. It consists of a tube of German silver, an inch and a sixteenth (twenty-seven millimeters) in length, having a narrow opening in front. It should clasp the thermometer with moderate pressure, and should slip off easily. It may be made to fit thermometers of various calibers within narrow limits. However, the tubes of thermometers vary so much that it has been found necessary to make the instrument in three sizes. The metal is of such thinness that the shield will go into the case with the thermometer. When not in use it may be put on the end opposite the bulb, where it is out of the way. When it is to be used, the shield should be placed

over the lower end of the stem of the thermometer, a quarter to half an inch above the bulb. The working of the thermometer is not interfered with, while the metal prevents the glass beneath from being bitten. It may be removed to be cleaned or boiled.

It may be applied to the lens-front thermometer by broadening the opening in the shield so that the blades embrace the lens. In this case the thermometer should be held in the mouth sideways, in order that the teeth may not bite the lens through the broadened opening.

The shield was designed particularly for taking the temperatures of children. It allows us to do that in the mouth in many cases where we should otherwise have to use the axilla. It is not so useful for very young children as for those old enough to act intelligently, yet whom we are afraid to trust with unprotected thermometers in their mouths.

The shield was made for me by Stoddart Brothers, of Buffalo.

186 Allen Street.

BUFFALO MEDICAL AND SURGICAL JOURNAL

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COLLEGE COMMENCEMENTS.

MEDICAL DEPARTMENT OF NIAGARA UNIVERSITY.

THE tenth annual commencement of this school occurred Thursday, May 4, 1893, and in every particular, with the possible exception of the weather, was a perfect success.

The Alumni Association held its eighth annual meeting in the morning at ten o'clock in the amphitheatre of the college building, on Ellicott street. Professor Alvin A. Hubbell, in his address of welcome, reviewed briefly the history of the institution from its beginning in 1883: "It was at first domiciled in the Buffalo Hospital of the Sisters of Charity, with a dissecting-room, anything but attractive and comfortable, in an adjoining building. These quarters were, however, soon found to be inadequate and part of the work was taken to the rooms in the Y. M. C. A. Building, on Mohawk street. Later, rooms for dissecting were used in the old Court House building, corner of Clinton and Ellicott streets.

"In 1884-5, the present premises were purchased and part of the present building was erected. This was ready for occupancy at about holiday time of that year, and the didactic work of the school was then transferred from the Y. M. C. A. Building, the chemical work from Dr. Davidson's private laboratory, and the dissection from the old Court House building. The opening of the new building was an important event to the school, and both teachers and students set themselves to their tasks with a new inspiration. For some time the conveniences of the building sufficed, but as new demands were created and new needs were to be met, it was decided to enlarge the building. This was done in 1890, when the capacity was more than doubled, giving the present commodious and well-arranged quarters, which equal, at least

in convenience and adaptation to the requirements of medical teaching, if not in expensive and decorative architecture, that of any college building in the country."

Of the changes in the faculty, Dr. Hubbell spoke as follows:

"The faculty of today is not, however, the faculty of 1883-4. The professorial body was then made up of eleven physicians and one lawyer. It would be more difficult, it seems to me, to select from the rank and file of the professions a more capable body of men for teaching purposes. Dr. Gay and Dr. Davidson early passed over to the "great majority." Dr. Tremaine was prevented by ill-health from doing the work developing upon his position, and he retired from the activities of the school; but it is still honored by his name and prestige as Emeritus Professor of the Principles and Practice of Surgery and Clinical Surgery. Dr. Stockton was invited to other fields of labor. Dr. Heath and Dr. Daniels separated from the faculty later. All of these men were excellent teachers, and by their death or withdrawal the chairs they occupied suffered severe loss. Mr. Congdon, who was so efficient in the organization of the school, was not able to attend to the duties of the position to which he was appointed and soon gave place to another.

"Now the institution has in its possession the resignation, to take effect at the close of this year, of Dr. Fell, who has most devotedly and self-sacrificingly applied himself to the department of physiology and microscopy.

"Of the original twelve, therefore, we have left only today Drs. Cronyn, Lothrop, Ingraham, and your humble servant.

"Among the later accessions to the faculty, Drs. Campbell, S. T. Clark, and F. H. Potter have gone to their silent rest. Drs. Wheeler, Edward Clark, and Persons have sought other fields."

Dr. Clarence B. Le Van, President of the Alumni Association, in his annual address, reviewed from the standpoint of a student, the history and growth of the school, concluding his remarks by criticising the county medical societies, particularly that of Erie county.

At the close of Dr. Le Van's remarks, the election of officers for the ensuing year took place, with the following result: Dr. John M. Hewitt, President; Dr. A. W. Bayliss, First Vice-President; Dr. E. M. Dooley, Second Vice-President; Dr. W. H. Norrish, Secretary; Executive Committee, Drs. J. M. Meyers, L. A. Hanley, and J. Henry Dowd.

Resolutions in relation to Dr. William R. Griffis, of the Alumni

Association, who died during the year, were adopted. Among the older graduates in attendance were Dr. Joseph J. Kane, of Washington, and Dr. Sweeney, of New Orleans.

In the afternoon the Alumni Association met in the amphitheatre, when papers were read and discussed. The readers were Dr. J. Henry Dowd, of Buffalo; Dr. Edward Torrey, of Allegany, N. Y., and Dr. L. J. McAdam, of Buffalo.

Dr. Dowd's paper will be found on page 660 of the JOURNAL.

The graduating exercises occurred at the Star Theatre, at 8.15 P. M. The pretty theatre was crowded to overflowing. The Right Rev. Stephen V. Ryan, Chancellor of the University, the Rev. Thomas Slicer, the Faculty of the Medical Department of the University, and the Board of Medical Examiners occupied chairs on the stage, while the graduating class occupied the front tier of chairs in the orchestra circle. Dr. Thomas Lothrop, Vice-President of the Faculty, presided over the exercises, and after a brief congratulatory address by Bishop Ryan, delivered the decennial address. (The address is published in full in this number of the JOURNAL.)

The following doctors then received their degrees: Herbert William Fudge, Elmira; William Gould Taylor, Buffalo; Daniel Francis White, Saratoga Springs; Frederick Michael Boyle, Auburn; Patrick Henry Hourigan, Oswego; Henry Jefferson Newton, Fredonia; Thomas Francis Healy, Birmingham Conn.; George Heslop Grey, Glanford, Ont.; James Allen Blair, Arnot, Pa.; James Henry Meehan, Niagara Falls. Earl Lothrop received the degree as proxy for George Heslop Grey. Mr. Grey was taken suddenly sick and was unable to be present. The Rev. Mr. Slicer closed the exercises with a most excellent address to the graduates. Perhaps no more able and impressive remarks were ever made to a body of graduates in Buffalo, and the JOURNAL regrets very much at not being able to reproduce them.

The banquet at the Tifft was a fitting finale to the day's exercises; the party, numbering about sixty persons, included the officers of the University, professors, alumni, and invited guests. Clarence B. Le Van, M. D., acted as toastmaster. The following toasts were responded to: "The University," by the Rev. P. C. Kavanaugh; "The Medical Department," by Eugene A. Smith, M. D.; "The Clergy," by the Rev. Dr. Aaron; "The Board of Health," by Ernest Wende, M. D.; "Dentistry," Dr. Frank Low; "The Legal

Profession," George E. Bird ; and "The Class of '93," Dr. W. G. Taylor.

The party separated at an early hour in the morning, convinced that this commencement marks an important epoch in the history of the institution, and every one satisfied, yea, gratified with the successful termination of the day's exercises.

MEDICAL DEPARTMENT—UNIVERSITY OF BUFFALO.

The commencement exercises of this institution partook of more than the ordinary amount of interest and importance this year by virtue of the dedication of the new college building on High street. Tuesday, May 2, 1893, was the day appointed for these exercises, and favored with pleasant weather. A large number of out-of-town alumni, together with resident alumni, assembled in alumni hall at 10.30 A. M. In the absence of Dr. G. R. Hopkins, of Silver Creek, president of the Alumni Association, Dr. W. C. Phelps, of Buffalo, presided. In his address of welcome, Professor Roswell Park referred to the completion of the new building, its beauty, usefulness, and adaptation to every need, declaring it to be the most hospitable, comfortable, serviceable, and attractive to be found among the medical schools in the world. His hearers seemed to share the same belief.

The following were elected officers of the Alumni Association for 1893-4 : President, W. C. Phelps, Buffalo ; First Vice-President, Ernest Wende, Buffalo ; Second Vice-President, E. H. Woolsey, Oakland, Cal.; Third Vice-President, P. W. Van Peyma, Buffalo ; Fourth Vice-President, Mrs. Jane W. Carroll, Buffalo ; Fifth Vice-President, D. A. Currie, Englewood, N. J.; Permanent Secretary, J. J. Walsh, Buffalo ; Recording Secretary, F. B. Willard, Buffalo ; Treasurer, H. U. Williams ; Trustees : Henry Lapp, Clarence ; F. E. L. Brecht, E. C. W. O'Brien, Joseph Fowler, Mahlon B. Folwell, Buffalo.

Executive Committee : W. H. Bergtold, W. C. Phelps, John Parmenter, Secretary Medical Faculty, F. P. Vandenberg, and H. H. Bingham.

The Chairman was instructed to appoint a committee of five to consider and report on the advisability of establishing a school of veterinary medicine in connection with the University.

The afternoon session was largely attended. Papers were read by Dr. Paul F. Mundé, of New York; Dr. C. C. Frederick, of Buffalo, and Dr. F. Stanbro, of Springville, N. Y.

The commencement exercises occurred at Music Hall at 8.30 P. M. Seated upon the stage were Chancellor E. C. Sprague, the officers of the University, Rev. Dr. Thos. Slicer, the faculties of the departments of medicine, pharmacy, and dentistry, friends and alumni of the University.

The Department of Medicine graduated forty-nine members.

The Chancellor announced that the Council of the University had conferred on Dr. Evan O'Neil Kane, of Kane, Pa., the honorary degree for distinguished contributions to medicine.

The honor roll was read as follows: 1, Albert E. Woehnert; 2, Burnell R. Johnson; 3, Albert T. Lytle; 4, William J. Squire; 5, Franklin W. Barrows; 6, Evangeline Carroll; 7, John Riordon; 8, Fred James Mann; 9, Fred H. Bailey; 10, Grant A. Neal.

Dr. Albert T. Lytle received honorable mention for a thesis on Plica Polonica.

The department of pharmacy granted diplomas to twenty, while the department of dentistry granted diplomas to five young men. This is the first class to graduate in dentistry, and if they live up to the oath administered by the Dean, this school need not fear that its alumni will degrade themselves or their alma mater.

Dr. Paul F. Mundè, of New York, then addressed the graduates, taking for his subject, Specialism in Medicine. Contrary to the generally accepted notion that the specialist is the creature of modern times, Prof. Mundè asserted that specialists have existed from the earliest times. He instanced such specialists as Laennec and Andral in diseases of the lungs; Siebold, Mariceau, and Smellie in obstetrics and gynecology; Bright and Rayer for diseases of the kidney; Cruveilhier, in pathological anatomy; Hunter, Bichat, Magendie, and Muller, for anatomy and physiology; Sir Astley Cooper in surgery, and Mesdames Boivin and Lachapelle in obstetrics, also came in for notice.

The speaker concluded his address with the following advice: "Do not begin by being a specialist. Start as a general practitioner. Become thoroughly trained as a physician, and then when you have grown in experience and have gained sufficient insight into the various branches of medicine to be able to judge for which special line your capacities and talents fit you, and to which your inclinations draw you, then *caeteris paribus*, circumstances and means permitting, adopt that specialty, either by a gradual acquaintance with it in the course of general practice, or by special study for a sufficient length of time." He counseled his hearers against

being one-sided or routinists, and whether as specialists or general practitioners, never to forget that their first duty was to their patients.

The proceedings closed with the benediction, pronounced by the Rev. Dr. Slicer.

The Alumni Association of the Medical Department banqueted at the Tifft House under the toastmastership of Dr. W. C. Phelps, president of the Association.

AN IMPORTANT MEETING.

The National Conference of the State Medical Examining and Licensing Boards will convene in annual session for the third time, at the Pfister Hotel, Milwaukee, on Tuesday, June 7, 1893.

This organization has grown out of the conditions that are obtaining in the several States that require a separate State license, before conferring the right to practise medicine on any individual. Year by year the numbers of these commonwealths are increasing, and at the rate of the increase now going on it will not be long before every State will require a separate examination for a medical license to practise.

There can be no question as to the good influence these laws are exerting in improving professional *esprit de corps*, and in elevating professional standards throughout the country. The existence of these boards stimulates teaching faculties to do better work, and, year by year, the ratio of rejections will naturally decrease.

At the annual conference of the Medical Examining and Licensing Boards, practical questions are considered relating to the methods of holding examinations, a uniformity in which seems very desirable. There should be a reciprocity between the States in this matter, so that a physician holding a license in one State may register in another, on removal thereto, without undergoing an additional examination. This reciprocity can only be brought about by having the standards uniform and of equal merit.

There is no organization in the country capable of exerting a greater influence for good upon the profession of medicine, and directly and indirectly upon the sanitation of the country, than this National Conference of State Examining and Licensing Boards.

While the members of the conference are limited to active and retired members of examining boards, yet all persons interested

are invited to the meeting to exchange views with the members, and to assist in perfecting the scheme for improved educational standards in all the States.

A number of papers will be read at this meeting in accordance with the schedule announced in the May number of the JOURNAL, and discussions will be held upon these and other topics that will prove of interest and value to all who attend. It is to be hoped that every State board will be represented at the conference.

THE AMERICAN SURGICAL ASSOCIATION.

THE American Surgical Association, whose annual meeting occurs in Buffalo, May 30, 31, and June 1, 1893, was organized in 1879 at the suggestion of the late Dr. S. D. Gross, who had long cherished it as one of the objects of his ambition to establish an association which should bear a national name, and embody in one harmonious whole the leading surgical talent, experience, and wisdom of this great country.

He first took into his confidence Drs. Moses Gunn, W. T. Briggs, and W. W. Dawson, who, with him, may be considered as the founders and organizers of the Association.

In May, 1880, on the invitation of the above-mentioned gentlemen, about fifty of the leading surgeons of this country assembled in Philadelphia, formally organized the Association, and elected Dr. Gross as their first president. The next meeting of the Association was held in Richmond, Va., in 1881, while another meeting was held the same year, in September, at Coney Island, at which Dr. Gross was reëlected as president. The third annual meeting was held in Philadelphia in 1882. In his opening address, Dr. Gross disclaimed any intention of injuring or interfering with the surgical section of the American Medical Association, and voiced the hope that the "American Surgical Association might be the altar upon which the surgeons of this country would annually lay their contributions to surgical science, and so show the world that they are earnest and zealous laborers in the interest of human progress and human sufferings."

In 1883, the Association met in Cincinnati, and in 1884, and for eight years thereafter, their annual meetings were held in Washington. Last year they met in Boston, and this year they are to convene in our own city.

Their roll of membership includes almost every name well

known in the annals of American surgery, and a membership in their ranks is justly regarded as the highest reward for original and meritorious work in the gift of the American profession.

Through the efforts of Dr. Park, this city was selected as their next meeting place, and it is to be hoped that, inasmuch as their sessions are open to all, the profession of Buffalo and vicinity will turn out in large numbers to meet and greet the men whose names are so familiar to them, and will extend to them a cordial welcome.

We are requested to say that an invitation to attend the scientific sessions of the Association is hereby extended to all, and that they will be held in the Alumni Hall of the University of Buffalo, on the days above mentioned.

The completed programme of the proceedings will be found elsewhere in this number.

TOPICS OF THE MONTH.

By the way, who is M. Allen Starr, M. D., anyhow?

The Life Underwriters' Association, of Western New York, tendered their medical examiners of Buffalo a banquet at the Genesee, Wednesday evening, May 17, 1893. Among the physicians present were Drs. Phelps, Hopkins, Clark, Hayd, B. Long, E. Long, Ingraham, Goltra, Heath, Howell, Flagg, Preiss, and Krauss.

The Fresh Air Mission is a charity which ought to, and no doubt does, appeal to the sympathies of every humane person. The good work that has been done heretofore by this organization is a sufficient guarantee that whatever contributions it receives will be faithfully and economically applied. The proposition to enlarge the scope of the Mission and to erect buildings for its special needs, is one well deserving the consideration and liberal contributions of the citizens of Buffalo.

Much has been done in the past to benefit the children, but still more can be done, and ought to be done, by the philanthropic and liberal-minded citizens of Buffalo. Let the contributions pour in liberally, and the results will be speedily manifested. If there is any class especially deserving, it is the children. Whatever their physical, mental, or other defects, they are not responsible for

their environment or their feebleness. Let every one remember the mandate of our Saviour, "Suffer little children to come unto me, for of such is the kingdom of heaven."

Inasmuch as journals of every grade, color, description, and language have had their say on the question of Sunday opening of the Columbian Exposition, so the Journal may be pardoned for expressing its opinion, or rather the sentiment of the medical profession. Physicians who go to Chicago, with but very few exceptions, will have very limited time to spend and surely will wish to make the very best use of that time, and that time will be at the Exposition grounds whether it be Sunday or Friday. Our suggestion to the Columbian Commission is to throw the gates open every day in the week.

In the announcement of the Chicago Post-Graduate Course, Dr. Emery Lanphear, who resides in Kansas City, Mo., was credited with a residence in New York. Dr. Lanphear will lecture upon Some Achievements in Intracranial Surgery, and illustrate his subject from cases coming within the scope of his own personal experience and upon which he has operated, thus giving his lectures an extremely practical character, which is a hundred-fold better than theory.

Dr. Lanphear has had a remarkable experience in injuries and surgical diseases of the brain, and he has been singularly successful in their management.

The New York State Reformatory, at Elmira, has recently published its seventeenth year book. It includes the annual report of the Board of Managers for the year ending September 30, 1892.

We wish this book could be in the hands of every philanthropist, educator, and all interested in the subject of prison reform. In this volume is told the methods which are successfully employed to recover young criminals, or unfortunate lads, from the road to destruction, and the story of their reform is an interesting one.

The purpose of the Elmira Reformatory is to take charge of first criminal offenders of ages from sixteen to thirty. This embraces the period of mental plasticity during which they are presumed to be reclaimable. It is during this period that they can

be, if at all, returned to society as citizens and self-supporting workers. We have seldom seen so interesting a record of educational, physical, and moral training as is recorded in this volume. It is handsomely printed on heavy book paper, profusely illustrated, and neatly bound. We are indebted to Dr. William C. Wey for a copy.

Dr. John Edwin Rodes, of Chicago, has compiled a very useful little pocket dose book. It is quite compact and adapted to the vest pocket. It contains a complete posological table of old remedies, and such new ones as are of value. The doses are given in both apothecaries' weights and measures, and in the metric system, with an easy rule for changing from the one to the other. It also contains rules for the practice of artificial respiration, the treatment of asphyxia, a table of poisons and their antidotes, together with many other useful information. It is published by Sharpe & Smith, Chicago, to whom orders should be addressed.

The question of good roads is one that requires considerable agitation. It is not only in the interest of agriculture and social interchange of courtesies between the inhabitants of a county and state, but it is also in the interest of good health that this reform should be urged. Especially is it of necessity that the agricultural interests of the country should be roused on this subject, because in the success of the farmer lies the prosperity of the commonwealth. Col. Albert A. Pope, of Boston, has worked indefatigably in this direction, and deserves much credit for his generous and untiring efforts. It is desirable that the Senate Committee on Agriculture in the Fifty-third Congress, of which the Hon. James J. George, of Carrollton, Miss., is Chairman, should be urged to investigate the relation of roads to the agricultural interests of the country. To this end we hope every interested person will address Mr. George either by letter or petition. There is no half-way point in this matter; we must either have good roads or else let them go by default in the future as they have in the past.

Obituary.

Dr. Charles Carroll Lee, of New York, died in hat city, May 11, 1893, of pleurisy, in the fifty-fifth year of his age. He was President of the Medical Society of the County of New York at the time of his death, Professor of Gynecology in the Post-Graduate Medical School, and Surgeon to St. Elizabeth's Hospital.

Dr. Lee was singularly well equipped, both by education and natural accomplishments, for the station in which he became such a shining light. As teacher and physician he had few equals and no superiors in his chosen field. His amiability of character and courteous demeanor on all occasions were such as to grapple a large group of friends to his soul with hooks of steel.

Personal.

Dr. M. A. Crockett has removed his office to 452 Franklin street.

Dr. H. Corwin Jones has located his office at 255 Eighteenth street.

Dr. Charles Cary has returned from his European trip much improved in health.

Dr. Coakley has been elected a City councilman to fill the vacancy caused by the death of George W. Hayward.

Dr. F. S. Crego expects to be installed in his beautiful new office, corner Delaware avenue and Virginia streets, before the close of the month.

Dr. George E. Fell has resigned his position as Professor of Physiology and Microscopy in the Medical Department of Niagara University.

Dr. Ernest Wende has removed his office temporarily to 467 Virginia street, awaiting the completion of his new home on Delaware avenue.

Dr. Evangeline Carroll, of Ashland avenue, has left the city to assume the position of senior physician in the Woman's Hospital in Detroit.

Dr. Frederick L. Van Sickle has removed from 729 Prospect avenue to 393 Hampshire street, corner Eighteenth. Hours : 8 to 10 A. M.; 1 to 3, and 7 P. M.

Dr. Louis A. Bull, whose practice is limited to diseases of the nose, throat, and chest, has removed his office to Nos. 32 and 34 Market Arcade, 619 Main street, Buffalo, N. Y.

Dr. Brooks H. Wells, editor of the *American Journal of Obstetrics*, has recently been appointed Adjunct-Professor of Gynecology at the New York Polyclinic. The Polyclinic has done itself great honor.

Dr. A. L. Benedict, who is making a specialty of diseases of the digestive organs—stomach, intestine, and liver—is now located at 174 Franklin street, Hours: 8 to 9 A. M., 2 to 3, and 6.30 to 7.30 P. M.; Sundays, 12 M.

Dr. Irving M. Snow, whose practice is confined to diseases of children, has removed his office and residence from 371 Porter avenue to 476 Franklin street, near Allen. Office hours: 8 to 9.30 A. M., 2 to 3, and 7 P. M.

Dr. George Ben Johnston, of Richmond, Va., has been unanimously chosen by the Trustees of the University of Virginia, as Professor of Surgery of the Medical Department vice J. S. Dorsay Cullen, M. D., deceased. The Richmond faculty is to be congratulated upon the accession of so competent a colleague.

Dr. Walter P. Manton, of Detroit, was elected an honorary member of the Kalamazoo Academy of Medicine, at its annual session in January last, at which time he read a paper on the Diagnosis of Abdominal Tumors, and exhibited several specimens illustrating the points made in his instructive communication.

Professional Aristocrats.—Our friend, Dr. W. H. Wathen, returned from the East, yesterday morning, looking fresh and cheerful, and no wonder, for he had been attending the meeting of the National Association of Gynecologists in Philadelphia. This society embraces the aristocracy of the profession. Dr. Wathen says that at the recent meeting there were ten applicants for membership, and seven were rejected.—*Louisville Commercial.*

Hospital Notes.

The following changes have been made at the various Buffalo hospitals:

Fitch Hospital: Dr. J. J. Cullinane has been appointed to succeed Dr. Bradbury as senior house surgeon; Mr. E. L. Puffer has been made first assistant.

Emergency Hospital: Dr. Fred. M. Boyle will take Dr. Culbert's position as resident physician. Dr. Frank J. Carr has become first assistant, and Dr. J. H. Walsh, second assistant.

At the Buffalo Hospital of the Sisters of Charity, Dr. Daniel J. White officiates as house physician, with Dr. Harry Newton as first assistant, and Dr. Patrick J. Hourigan, second assistant.

At the Buffalo General Hospital, Dr. Albert Woehnert and Dr. Frederick Mann succeed Drs. Woodruff and Hetzel as house physicians.

Academy of Medicine Notes.

Fellows of the Academy desiring application blanks for their friends may obtain them by applying to the Secretary.

Physicians in Buffalo to be "on time" must belong to the Academy of Medicine, otherwise they must be classed as "late."

At its last meeting, the Council appointed Frederic W. Bartlett, M. D., Librarian, and Herbert U. Williams, M. D., Curator of the Museum.

The Section on Obstetrics and Gynecology elected the following officers at its last meeting: Dr. M. A. Crockett, President; Dr. Lillian C. Randall, Secretary.

The names of all members of the old societies, now comprising the Academy, who shall not have paid their initiation fee by June 21st, will be dropped from the Secretary's rolls. They can then only be admitted to the Academy through the Council.

The next meeting of the Surgical Section occurs May 30th. The subject under discussion will be on Hemorrhoids, by Dr. Edward

G. Meyer; Treatment of Hemorrhoids, by Dr. Edward Clark. This will be the last meeting of this Section until September 5th.

The Section on General Medicine elected the following officers at its May meeting: Dr. John H. Pryor, President; Dr. Electa B. Whipple, Vice-President; Dr. J. H. Dowd, Secretary and Treasurer. This Section will not meet in June, the next meeting being in September.

Anybody doubting the wisdom of the movement which resulted in the formation of the Academy, should go to the Academy rooms on a Tuesday night and observe the change which has come over the Buffalo medical meetings. Pleasant rooms, good attendance, spirited discussions, and a hearty welcome, are symptoms which were not discoverable in the old societies.

The next stated meeting of the Academy will be held June 20th, under the auspices of the section on Obstetrics and Gynecology. The annual meeting and the election of officers will occur June 27th. The nominations made at the March meeting of the Academy were: For President, Thomas Lothrop, M. D.; Treasurer, Eugene A. Smith, M. D.; Trustee, Frederic W. Bartlett, M. D.

Society Meetings.

AMERICAN SURGICAL ASSOCIATION.

The programme of the annual meeting to be held in the new Alumni Hall, of the Medical Department of the University of Buffalo, 20 High street, Buffalo, N. Y., May 30, 31, June 1, 1893. Members of the medical profession are cordially invited to attend any of the meetings of the association, save when it is in executive session.

May 30th, Tuesday.—Session at 10 A. M.

Roll call.

Address of Welcome, by Prof. M. D. Mann, Dean of the Medical Department, University of Buffalo; President's Address, A New Method of Direct Fixation of Fragments in Compound and Ununited Fractures; Discussion by Drs. Roswell Park, F. S. Dennis, and De Forrest Willard; Pneumotomy for Removal of a Horse-shoe Nail from the Right Lung of a Child, by W. T. Briggs, M. D., Nashville, Tenn. Executive Session.

Afternoon Session, 2 o'clock: Hypertrophies and Degenerations of Cicatrices and Cicatricial Tissue, by Dr. J. Collins Warren, Boston; Discussion by Drs. C. H. Mastin, G. R. Fowler, and W. H. Carmalt; Surgery of the Gall Bladder, by Dr. M. H. Richardson, Boston; Discussion by Drs. J. Ewing Mears, A. Vander Veer, W. H. Carmalt, and Theo. A. McGraw.

WEDNESDAY MORNING.—SESSION AT 10 A. M.

At the Buffalo General Hospital, 100 High street. Exhibition of Cases and Specimens; presentation of volunteer papers, should time permit.

Afternoon Session, 2 P. M.:—Alumni Hall. Surgical Treatment of Cervical, Thoracic, and Abdominal Aneurism, by Dr. C. B. Nancrede, Ann Arbor; Surgery of the Rectum, by Dr. A. G. Gerster, New York; Discussion by Drs. L. S. Pilcher, H. H. Mudd, and L. McLane Tiffany. Executive Session at 5 P. M.

THURSDAY MORNING.—SESSION AT 10 A. M.

Executive Session. Surgery of the Prostate, by Dr. J. William White, Philadelphia; Discussion by Drs. Hunter McGuire, T. F. Prewitt, R. F. Weir, and F. H. Gerrish; Treatment of Carbuncle, by Dr. F. Lange, New York; Discussion by Drs. Robert Abbe, J. B. Roberts, and J. S. Wight.

In addition to the above, the following papers are volunteered and will be read, as opportunity offers, at the end of each day's programme:

Unreduced Dislocations of the Astragalus, by Dr. Stephen Smith, New York; Clinical Reports: Two Cases of Primary Sarcom of the Tonsil, with Operation; Cases of Operation upon Meckel's and the Gasserian Ganglions; Malignant Polyp, springing from the base of the skull; attempt to make the operation bloodless, after Senn's suggestion, by Dr. Roswell Park, Buffalo; The Importance of the Colon Bacillus to the General Surgeon, by Dr. Roswell Park.

President, Dr. Nicholas Senn, Chicago; Vice-Presidents, Dr. W. W. Keen, Philadelphia, Dr. Charles B. Porter, Boston; Secretary, Dr. J. R. Weist, Richmond, Ind.; Treasurer, Dr. J. B. Roberts, Philadelphia; Recorder, Dr. J. Ewing Mears, Philadelphia; Council, Dr. Robert F. Weir, New York; Dr. F. S. Dennis, New York; Dr. Stephen H. Weeks, Portland, Me.; Dr. C. H. Mastin, Mobile; Dr. Roswell Park, Buffalo; Chairman of Committee of Arrangements, Dr. Roswell Park.

AMERICAN MEDICAL ASSOCIATION.

PROGRAMME of the Section of Medicine, Milwaukee, Wis., June 6 to 9, 1893.

MORNING OF JUNE 6TH.

Address of the Chairman. A Review of Incurative Endocarditis, Dr. Chas. G. Stockton, Buffalo, N. Y.; The Complications of Chronic

Nephritis and Their Treatment, Dr. Wm. C. Dabney, University of Virginia; To Bleed or not to Bleed in Pneumonia, Dr. John North, Toledo, O.; Some Considerations Bearing on the Treatment of Pneumonia, Dr. W. H. Washburne, Milwaukee, Wis.; The Medical Aspects of Empyema, Dr. Robt. H. Babcock, Chicago, Ill.; Some Thoughts on the Differential Diagnosis of Chest Disease, Dr. J. G. Truax, New York City; Discussion, Dr. J. A. Larrabee, Louisville, Ky.

AFTERNOON OF JUNE 6TH.

A Case of Sunstroke with Considerations of its Treatment, Dr. Joseph Eichberg, Cincinnati, O.; The Treatment of Insolation, Dr. R. R. Ross, Buffalo, N. Y.; The Treatment of Pyrexia, Dr. James Witherspoon, Columbia, Tenn.: Demonstration of Gastrodiaphany, Dr. Max Einhorn, New York City; The New Chemistry of the Stomach as a Means of Diagnosis and a Guide to Therapeutics, based upon the Results of One Thousand Analyses of Stomach Fluids, Dr. J. H. Kellogg, Battle Creek, Mich.; The Value of Belladonna and Strychnine in Conditions of Circulatory Depression, Dr. H. A. Hare, Philadelphia, Pa.; Points on the Clinical History of Erysipelas, Dr. J. M. Andus, Philadelphia, Pa.

MORNING OF JUNE 7TH.

The Management of Hysteria by the General Practitioner, Dr. W. F. Rochelle, Jackson, Tenn.; Headache, Dr. James W. Putnam, Buffalo, N. Y.; An Additional Note on the Treatment of Exophthalmic Goitre, Dr. E. D. Ferguson, Troy, N. Y.; Hematoma Auris, Dr. H. A. Matzinger, Buffalo, N. Y.; Aneurisms Considered Medically Rather than Surgically, Dr. O. C. McNary, Leavenworth, Kan.; Insanity of Physiological Epochs, Dr. A. W. Hurd, Buffalo, N. Y.

AFTERNOON OF JUNE 7TH.

The Treatment of Cholera, Dr. J. H. Hollister, Chicago, Ill.; Brief Clinical Memoranda. (*a*) An Available Catheter Lubricant, (*b*) Facile Reduction of Prolapsed Hemorrhoids, (*c*) Preparing Hemorrhoids for Injection, (*d*) Ready Relief for Lumbago, Dr. H. A. Didama, Syracuse, N. Y.; Medical Treatment of Typhlitis and Appendicitis, Dr. F. W. Ross, Elmira, N. Y.; An Unusual Case of Appendicitis, Dr. J. H. Musser, Philadelphia, Pa.; Discussion of Dr. Musser's Case and Appendicitis, Dr. Joseph Price, Philadelphia, Pa.

MORNING OF JUNE 8TH.

A Case of Cancer en Cuirasse, with Report of an Autopsy and Illustrations, Dr. J. B. Marvin, Louisville, Ky.; The Cancer Parasite from a Micro-technical Standpoint, Dr. A. P. Ohlmacher, Chicago, Ill; The Association of Diseases and Morbid Processes, Dr. H. A. West, Galveston, Texas; Studies in Immunity, Dr. D. N. Kinsman, Columbus, O.; Early Aspiration in Acute Pleuritis, Dr. E. J. C. Minard, Brooklyn,

N. Y.; A Preliminary Report on an Inquiry as to the Frequency of a Form of Kidney Degeneration in which Albuminuria may not be Regarded as a Symptom.

AFTERNOON OF JUNE 8TH.

The Origin and Clinical Significance of Uric Acid, Dr. Victor C. Vaughan, Ann Arbor, Mich.; The Brand Method of Treating Typhoid Fever, Dr. James C. Wilson, Philadelphia, Pa.—This Topic will be discussed by: (*a*) Dr. Chr. Sihler, Cleveland, O., (*b*) Dr. H. A. LaFleur, Montreal, Que., (*c*) Dr. Geo. Wilkins, Montreal, Que., (*d*) Dr. L. Wolff, Philadelphia, Pa., (*e*) Dr. W. Gilman Thompson, New York, N. Y., (*f*) Dr. Wm. Pepper, Philadelphia, Pa.; Cold Water in Typhoid Fever, Dr. H. H. Middlekamp, Warrenton, Mo.; The Treatment of Intestinal Hemorrhage in Typhoid Fever, with Cases, Dr. Z. J. Lusk, Warsaw, N. Y.

MORNING OF JUNE 9TH.

Experiences with Trional as a Hypnotic, Dr. W. C. Krauss, Buffalo, N. Y.; One Thousand Cases of Typoid Fever, Dr. James B. Herrick, Chicago, Ill.; The Present Stand of Tuberculin, Dr. J. T. Whittaker, Cincinnati, Ohio; The Mutual Interest of the Medical Profession and Insurance Companies in the Prolongation of Human Life, Dr. Chas. Denison, Denver, Colo.; Typhoid Fever, Dr. M. J. Crouch, Union, Ky.

AFTERNOON OF JUNE 9TH.

A Case of Fever of Undetermined Type, Dr. Starling Loving, Columbus, Ohio; Some Remarks on Diabetes, Dr. N. S. Davis, Chicago, Ill.; The Detection and Significance of Carbohydrates in the Urine, Dr. Chas. W. Purdy, Chicago, Ill.; The Treatment of Diabetes Mellitus by Jambul (Syzygium Jambolaneum), Dr. James Tyson, Philadelphia, Pa.; Heat in the Treatment of Disease, Dr. Chas. H. Shephard, Brooklyn, N. Y.

AMERICAN ACADEMY OF MEDICINE.—Preliminary programme of the meeting for 1893, at Milwaukee.

Saturday Morning, June 3d, at 10 o'clock.—Executive Business; Reports of Committees; On Eligible Fellows; On the Requirements for Preliminary Education in the Various Medical Colleges in the United States and Canada; On the Comparative Value of Academical Degrees. Papers: The Attitude of our Medical Schools in Relation to Preliminary Studies, R. Lowry Sibbet, Carlisle, Pa. What Mental Faculties Should be Specially Trained for the Study of Medicine? James W. Moore, Lafayette College. The Classics and the Common Schools, J. Berrien Lindsley, Nashville, Tenn.

Saturday Afternoon at 2.30.—President's Address. Papers: What Should be Required in an Entrance Examination to a Medical School?

James W. Holland, Jefferson Medical School. Should there be Elective Studies in a Medical Course? P. S. Conner, Medical Department, Dartmouth College. On the Endowment of Medical Schools, George M. Gould, Philadelphia.

Re-union Session, Saturday evening.

Monday Morning, June 5th, at 10 o'clock.—Executive Business; Report of Committee on the Laws Regulating the Practice of Medicine. Papers: The Duty of the State to Medicine, Benjamin Lee, Philadelphia. The Importance of the Study of Medical Sociology, Charles McIntire, Easton, Pa. Title to be announced later—C. C. Bombaugh, Baltimore.

There will probably be time at the meeting for the reading of two or three papers more than are now on the programme. Fellows who desire to contribute such papers are requested to send the titles to the Secretary. Some of the papers are promised provisionally and are announced with this understanding.

The American Medical Association meets at Milwaukee, Wis., June 6, 7, 8, 9, 1893.

The American Microscopical Society and the American Association for the Advancement of Science meet at Madison, Wisconsin, August 14, 15, and 16, 1893.

The next meeting of the Buffalo Microscopical Club will be held in the Library Building, Monday evening, June 19, 1893. This being the annual meeting, the president's address will be given; subject, Nuclear Origin of the Cranial Nerves, by William C. Krauss, M. D. Report of officers and election of officers will follow.

The semi-annual meeting of the Erie County Medical Society will be held Tuesday, June 13, 1893, at 10 A. M., in the rooms of the Buffalo Academy of Medicine, Market Arcade. The committee has arranged the following excellent programme: The Use of the Metric System. Discussion opened by Dr. A. L. Benedict, chairman of the committee on the metric system. Discussion on Renal Insufficiency; diagnosis by Dr. A. A. Jones; treatment by Dr. DeLancey Rochester.

The twenty-sixth annual meeting of the Medical Association of Central New York will be held in the Chamber of Commerce,

Rochester, N. Y., on Friday, June 16th. The counties included in the Association are Cayuga, Chenango, Cortland, Erie, Genesee, Livingstone, Madison, Monroe, Onondaga, Ontario, Orleans, Oswego, Seneca, Wayne, Wyoming, Yates. Delegates from any of these societies who are registered at two successive meetings are eligible to election as permanent members.

A cordial invitation is extended to members of any county society, whether delegates or not, to participate in the proceedings. Titles of papers to be read should be sent to the president, Dr. L. A. Weigel, of Rochester, or the secretary, Dr. Edw. B. Angell, Rochester, N. Y., to be included in the preliminary programme which will be issued about the 1st of June.

The American Medical Editors' Association will hold its eleventh annual meeting in Milwaukee, on Monday, June 5, 1893. The President, Dr. J. C. Culbertson, will deliver the annual address; Dr. G. M. Gould will read a paper on Medical Orthography, and a paper will be read on Some New Phases of Journalism. The banquet will be given at 6.30 P. M. and will be followed at 8.30 P. M. by an address by Dr. Ernest Hart, Editor of the *British Medical Journal*. Following this will be an address on Editorial Responsibilities and Questions of Libel, by the Hon. Clark Bell, of New York, and an address on Psychological Phases of Medical Study and Journalism, by Dr. J. Stanley Hall, President of Clark University. Medical editors throughout the country are invited to attend.

Book Reviews.

A System of Genito-Urinary Diseases, Syphilology, and Dermatology, by various authors. Edited by Prince A. Morrow, A. M., M. D., Clinical Professor of Genito-Urinary Diseases; formerly Lecturer on Dermatology in the University of the City of New York; Surgeon to the Charity Hospital, etc. With illustrations. In three large 12mo volumes. Vol. I., Genito-urinary Diseases. Sold only by subscription.

The most comprehensive system of the diseases named in this title that has ever been published is contemplated by the editor, of which the present is the first volume. Two others are to follow, making the work complete in three volumes. It is encyclopedic in character, and the contributors to Vol. I. number thirty-two

authors and writers distinguished in the several departments on which they discourse.

The Anatomy and Physiology of Genito-urinary Organs are considered in the first section of the book by George Woolsey, M. D. The next subject, Diseases of the Penis, is written upon by Raymond Guiteras, M. D. This will be found a most interesting section, though it is comparatively brief. Diseases and Injuries of the Urethra form the subject of the next section, and are discoursed upon by F. Tilden Brown, M. D. Various operations for hypospadias and epispadias are described and elaborately illustrated. The Etiology of Urethritis is next considered by S. Lustgarten, M. D.

Acute Urethritis, or Gonorrhea, is elaborately handled by George Emerson Brewer, M. D. This chapter is one of great satisfaction, and is full of valuable thought with reference to all phases of this most serious malady. It is a great mistake for physicians to regard this disease as of little importance and to treat it in a flippant or careless manner. There is more danger lurking in a neglected or uncured gonorrhea than in any other venereal disease. Everyone should be familiar with what Dr. Brewer has written.

The next section is upon Chronic Gonorrhea, or Gleet, and is briefly dealt with by William K. Otis, M. D. Endoscopy, by M. Clotz, M. D., is a most interesting chapter. It is important that one should be expert in order to gain such information from the endoscope as is required to make it useful in the diagnosis of disease. The author has fully set forth the details of the manipulation of this instrument. Gonorrheal Ophthalmia, by James A. Andrews, forms the subject of the next section of the book, which is most important in its bearings. Every obstetrician should know how to treat this direful malady, and especially should he know how to prevent it. Gonorrheal Rheumatism is dealt with by Frank Hartley, M. D., and Gonorrhea of the Rectum, Mouth, Nose, Ear, Umbilicus, and Axillary, by James D. Tuttle, M. D. Stricture of the Urethra is elaborately dealt with by J. William White, M. D., in the next seventy pages of the book. This is one of the most important chapters for the genito-urinary surgeon, and one that will command the attention of teachers and specialists throughout the land.

Diseases of the Prostate are treated of in the next section by Dr. W. T. Belfield. This important organ has been much

neglected by general practitioners, and should be studied in the light of this recent literature. Dr. Joseph D. Bryant writes on Functional Disorders of Micturition, and Dr. Eugene Fuller discourses on the Diagnostic Significance of Pathological Modification in the Urine. Next follows a chapter on Urinary Fever, by Dr. J. A. Fordyce, and then Dr. Willy Meyer discourses upon Cystoscopy. This is one of the most interesting chapters in the book, and is written by a masterful hand; it is well illustrated and deserves careful study.

The Cystites, by Dr. Samuel Alexander, forms the subject of the next section, and this is followed by Dr. George Ryerson Fowler on Diseases and Injuries of the Bladder. Dr. Fowler is a surgeon of experience, and his section is ably discussed. Tumors of the Bladder are treated of by Dr. Francis Sedgwick Watson, and his plates illustrating carcinoma are most interesting. Suprapubic Cystotomy is described in detail in this chapter, and then Dr. Arthur T. Cabot writes a section on Stone in the Bladder. This is illustrated with numerous wood-cuts and some reproduced photographs illustrating Litholapaxy and Lithotomy. This is another of the essential chapters of the book and should be carefully studied to be appreciated.

Surgical Diseases of the Kidney are handled by Dr. Lewis A. Stimson in his usual masterly style. In view of the recent advances in the treatment of these diseases, such a contribution as this is a useful addition to the literature on the subject. Tuberculosis Uro-genitalis, by Dr. John P. Bryson, is next considered, and then Diseases of the Scrotum, by Dr. Charles W. Allen; then follow chapters on Diseases of the Testicle, by Dr. Edwin C. Burnett, Dr. James Bell, and Dr. John P. Bryson; next, Hydrocele and Spermatocele are dealt with by Dr. John A. Wyeth and Dr. W. W. Van Arsdale. Varicocele is treated upon by Dr. Edward L. Keyes, who is an acknowledged master in genito-urinary surgery. Diseases of Seminal Vesicles, by Dr. Paul Thorndike, form the subject of the next section, followed by a chapter on Functional Disorders of the Male Sexual Organs, by Dr. Prince A. Morrow; this includes Spermatorrhea, Impotence, and Sterility. Dr. Andrew F. Currier treats of Gonorrhea in the Female and its Complications, which forms the final chapter in the book. A copious index is furnished at the end of the volume.

Taken altogether, this is the most satisfactory exposition of the diseases in the genito-urinary system which has been put forth,

and when the other volumes are issued it will constitute an encyclopedia upon the subject which must necessarily be found on the book-shelves of every teacher and specialist.

A Text-Book of Practical Therapeutics, with especial reference to the application of remedial measures to disease and their employment upon a rational basis. By Hobart Amory Hare, M. D., B. Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Laureate of the Royal Academy of Medicine in Belgium, of the Medical Society of London, etc.; President of the Section of Therapeutics in the Pan-American Medical Congress. Third edition. Enlarged and thoroughly revised. Cloth, $3.75; leather, $4.75. Philadelphia: Lea Brothers & Co. 1892.

The first edition of this book was published in September, 1890, and the ink was scarcely dry from the reviewer's pen before a second edition was demanded, which was put forth in May, 1891. In less than two years a third edition becomes necessary, and these facts alone would seem to indicate both the popularity and usefulness of this work. It will be remembered that Hare's System of Therapeutics, an encyclopedia work on a unique plan and a comprehensive scale, has been published only very lately. Taking these facts altogether, it would appear that the author is not only a master of the subject, but a man of marvelous industry, who finds time amidst a busy practice and activity in teaching to pursue to a finish such a vast amount of literary work, in such a comparatively short time.

This volume is properly named as a Text-book of Practical Therapeutics, which is emphatically the case from book-cover to book-cover. In this third edition will be found all the thoroughness of former editions, together with the latest and most reliable results obtained in the treatment of disease by those who have employed the newer remedies. Hare says in his preface:

> In this edition, directions are given for the use of drugs of such recent introduction as salophen, guaiacol diuretin, europhen, thiol, phenocoll hydrochloride, piperazine, dermatol, pental, terpine hydrate, terpinol, and the salts of stontium. Much information has also been added to the articles on such drugs as salol, phenacetine, menthol, and similar comparatively recent remedies. Another important addition is a list of drugs arranged as far as possible according to their physiological action, and a list of definitions of the terms used to designate classes of drugs.

The student and practitioner will not be disappointed in this

statement, because its truthfulness is verified over and over in the text of the book. The volume contains a valuable table of doses of remedies, a table of relative weights and measures in the metric and apothecaries' system, besides an index of drugs and remedial measures, together with an index of diseases and remedies. It is hardly possible for student, teacher, or practitioner to do without this work.

HAND-BOOK OF MATERIA MEDICA, PHARMACY, AND THERAPEUTICS, including the Physiological Action of Drugs, the Special Therapeutics of Disease, Official and Practical Pharmacy, and Minute Direction for Prescription Writing. By SAMUEL O. L. POTTER, A. M., M. D., M. R. C. P., Lond., Professor of the Theory and Practice of Medicine in the Cooper Medical College, of San Francisco; Visiting Physician to St. Luke's Hospital; Author of Quiz Compends of Anatomy and Materia Medica, An Index of Comparative Therapeutics, and A Study of Speech and its Defects. Formerly A. A. Surgeon, U. S. Army, and Brigade-Surgeon, N. G. of California. Fourth edition, revised. Octavo volume, pp. xii.—781. Price, $4.00. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1893.

We have noticed previous editions of this work in our columns, and can only say that this new edition is a continuation of the good form of the previous volumes. It has been accepted as a text-book by the colleges, and is found in a large number of libraries. The painstaking work of the author is shown by the fact that he has grouped together the salient features of the subject in a very accessible form, which is neither too small nor too voluminous. He lays great stress upon the importance of the knowledge of incompatibles, and every student should familiarize himself with this subject before trusting himself to write prescriptions. The arrangement of the volume is one of the best we have seen, and the thumb-index makes it of easy reference. We presume that teachers, students, as well as practitioners, will avail themselves of the opportunity to purchase for the sum of $4 one of the best standard works on Materia-Medica, Pharmacy, and Therapeutics, published in the English language.

TRANSACTIONS OF THE AMERICAN SURGICAL ASSOCIATION. Volume the tenth. Edited by J. EWING MEARS, M. D., Recorder of the Association. Philadelphia: Printed for the Association and for sale, by Wm. J. Dornan. 1892.

The tenth annual volume of this distinguished association is abreast with the former issues both, in scientific interest and

admirable make-up. The fact that the association will meet in Buffalo almost simultaneously with the appearance of the JOURNAL, and under the presidency of that distinguished surgeon, Dr. Nicholas Senn, lends an added interest to the proceedings of the society this year, which, no doubt, will be watched with profit by the profession residing in Western New York.

In the present volume, Dr. N. P. Dandridge, of Cincinnati, contributes a most interesting paper on the Surgery of the Tongue, which was amply discussed. This forms a valuable addition to the literature of this important department of surgery. Another paper which will attract attention, and be quoted as authority is entitled Treatment of Fractures of the Lower End of the Humerus and Base of the Radius, by Dr. John B. Roberts, of Philadelphia.

We commend the entire volume to the careful reading of surgeons, and all who make any pretense to the practice of surgery.

Dr. J. Ewing Mears, the accomplished Secretary, has issued a brochure, which may be termed an appendix in separate form to Volume X., containing a complete list of the officers and fellows of the American Surgical Association from the date of its organization in 1880 to 1892, together with an alphabetically arranged index of the ten volumes which the association has issued. This is a valuable supplement to the work of the association for a decade.

A MANUAL OF MEDICAL JURISPRUDENCE. By ALFRED SWAINE TAYLOR, M. D., F. R. S. Revised and edited by Thomas Stevenson, M. D., London, Fellow of the Royal College of Physicians. London; Lecturer on Medical Jurisprudence and Chemistry at Guy's Hospital; Examiner in Forensic Medicine in the University of London; External Examiner in Forensic Medicine in the Victoria University; Official Analyst to the Home Office. Eleventh American, edited with citations and additions from the twelfth English, edition. By Clark Bell, Esq., President of the American International Medico-Legal Congress of 1893. Honorary Member of the Medico-Legal Society of France; of the Society of Mental Medicine of Belgium; Ex-President of the Medico-Legal Society of New York, etc., etc. *Quod hodie exemplis tuemur mox inter exempla erit.* Philadelphia: Lea Brothers & Co. 1892.

Taylor's Medical Jurisprudence has been so long before the American profession, where it has been considered a guide to the subject of Forensic Medicine and a text-book in the colleges, that little remains to be said after we have noted the fact that the eleventh American edition has been revised and brought forward to include the immediate present. This work has been performed

by an eminent member of the New York bar, the Honorable Clark Bell, who is a writer and teacher on medical law. This edition has been made to include the twelfth English edition, and so has the very latest references. No library is complete without Taylor's Medical Jurisprudence, as its authority is accepted and unquestioned by the courts.

BOOKS RECEIVED.

Cholera: Its Protean Aspects and its Management. By Dr. G. Archie Stockwell, F. Z. S., (Member New Sydenham Society, London.) In two volumes—Vols. I. and II. "Respice, aspice, prospice." Physicians' Leisure Library. Price, 25 cents: Detroit, Mich. George S. Davis. 1893.

Manual of Chemistry. A Guide to Lectures and Laboratory Work for Beginners in Chemistry. A Text-book specially adapted for Students of Pharmacy and Medicine. By W. Simon, Ph. D., M. D., Professor of Chemistry and Toxicology in the College of Physicians and Surgeons, Baltimore; and Professor of Chemistry in the Maryland College of Pharmacy. New (fourth) edition. In one 8vo volume of 490 pages, with forty-four wood-cuts and seven colored plates, illustrating fifty-six of the most important chemical tests. Cloth, $3.25. Philadelphia: Lea Brothers & Co. 1893.

Medical Pocket Atlas. Obstetrics. Part I. Labor delineated in ninety-eight plates. By O. Schaeffer, M. D., Assistant at the University Frauen-Klinik, in Munich. Translated and published under the supervision of J. Clifton Edgar, M. D., Adjunct-professor of Obstetrics in the University of the City of New York; Attending Physician to the New York Lying-in Hospital; Assistant Obstetric Surgeon to the New York Maternity and to the Emergency Lying-in Hospitals. Formerly Volunteer Interne in the University Frauen-Klinik, of Munich. New York: L. Hydel, Publisher, 212 E. 50th street. 1893.

A Treatise on the Theory and Practice of Medicine. By American Teachers. Edited by William Pepper, M. D., LL. D., Provost and Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania. For sale by subscription only. In two volumes,—pp. 1,000. Price per volume, cloth, $5.00; sheep, $6.00; half-Russia, $7.00. Philadelphia, Pa.: W. B. Saunders, Publisher, 913 Walnut street. 1893.

Psychopathia Sexualis, with Especial Reference to Contrary Sexual Instinct. A Medico-Legal Study. By Dr. R. von Krafft-Ebing, Professor of Psychiatry and Neurology, University of Vienna. Authorized translation of the seventh, enlarged and revised, German edition. By Charles Gilbert Chaddock, M. D., Professor of Nervous and Mental Diseases, Marion-Sims College of Medicine, St. Louis; Fellow of the Chicago Academy of Medicine; Corresponding Member of the Detroit Academy of Medicine; Associate Member of the American Medico-Psychological Association, etc. In one royal octavo volume, 436 pages. Extra cloth, $3.00, net; sheep, $4.00, net. Sold only by subscription. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street.

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Original Address.

CHILDREN'S RIGHTS.

VALEDICTORY ADDRESS DELIVERED BEFORE THE MARION-SIMS COLLEGE OF MEDICINE, MARCH 23, 1893.

By I. N. LOVE, M. D., St. Louis.

It is my desire to bore you but a little while. Time out of mind, valedictory addresses have been delivered. The question which has presented itself to my mind occasionally since this duty was assigned me, has been, "Of what shall I speak?" Surely, the entire field has been covered over and over again. The subject least often considered on such an occasion, for the reason, possibly, that it seems insignificant rather than formidable or dignified, is the one which I have chosen,—namely, "Children's Rights;" and in the beginning, I can only say that I regret in the extreme that the strong-minded women of the world have not concentrated their great intellects upon the consideration of the amelioration of the wrongs of children rather than those of the female sex, because, really, women's wrongs only exist in the minds of these agitators. Bless their souls! have not women all the rights that any one could ask for? The right of being loved early and often; the right of being slaved for; the right of being protected; the right of being sought for; the right of being the dearest, sweetest, noblest, and best creatures, more closely in touch with man and Heaven than anything on the earth today? What more do they want? They surely have the earth already.

But the children—what are their rights? I grant that more time, thought, money, and effort are being directed toward the improvement of children today than ever before in the history of the world, and yet it is not enough.

Time was when the only right seemingly granted to children was the right of being born, and to this day, this right is granted them without consulting their comfort or wishes. They are

fully justified often in asking the question, "What are we here for?" Surely, in response to the selfish desires of the physical authors of their being. The changes have been rung for centuries in monotonous regularity, upon the great obligation which children are under to their parents for bringing them into a world of suffering, care, worry, and death. There are many who still think that the only right of a child is to be born, or by those puritanically inclined, it may be granted the additional right of being born again or being damned forever. All will grant the truth of Tupper's announcement that "a babe in the house is a well-spring of pleasure"; at least, if it is not, it should be. Is there anything more beautiful, more sweet, more lovable, more heavenly, than a baby? Nothing, unless it be two babies! Yes, truly, a baby is a thing of beauty, and we have good authority for the statement that it is a joy forever; but are babies developed in the direction of being perpetual joys? Does their loveliness increase? Will they never pass into nothingness, or, what is worse than nothingness, cussedness? As the statement has often been made, that the problem as to whether life is worth living depends much upon the liver, so we are safe in saying that the question as to whether a babe is worth the borning and all that the term implies, depends much upon those engaged in and responsible for the borning. I make bold to say that the men who have invested their money and given their gray matter towards the raising of the finer breeds of horses, cattle, and other of the lower animals, manifest greater intelligence and appreciation of their awful responsibilities than do the average parents. Unquestionably, one of the greatest obstructions today to the proper appreciation of duty on the part of parents to their children, is due to the maniacal struggle for money and place. Fathers work frantically day and night for gold with which to buy position and power. Mothers, too many of them, are filled with the desire for social preferment or the securement of that place in society which will enable them to outshine some one else. Both father and mother should be satisfied with a less degree of success in these directions and determine in the beginning of their career to work towards the furnishing to the State of high-bred, good-blooded children. There is one thing in the Catholic church which commands my admiration, and that is their teaching in the direction of duty to the home and children, particularly upon the part of mothers; in fact, I am strong in the belief that the world owes much to the Catholic

church for its noble fight for the rights of motherhood, for the nobility and dignity of motherhood. It might well be called the "Mother Church," if for no other reason than that of having placed the Virgin Mary upon the level of God himself, thus placing maternity close to divinity.

Don't understand me to announce the belief in the thought that there are many women in the world devoid of the maternal instinct and who wilfully neglect their children. The reverse proposition is true. Even the petted darlings of society who develop into mothers, are not devoid of the strongest mother-love. The charge that the society woman is disposed to knowingly neglect her child, particularly when its life is involved or the question of furnishing nourishment to it is presented, is, in my judgment, not true. I have never met one woman who wilfully declined to perform her duty when the question of the life or death of her child was presented to her.

The statement has been made that the masculine mind makes its blunders by overlooking details and the feminine by seeing nothing else, and yet I am confident that the blunders of motherhood are made owing to the fact that the mother fails to realize the importance of details of the little things connected with the well-being of her child.

That fathers are far more neglectful than mothers of their duty to children, all will admit. Too many fathers have indulged in the "eating of sour grapes and have thus set their children's teeth on edge." I grant that it makes very little difference, except from a physical point of view, who a child's father may be, but it is surely of vital importance as to the mother. We have only to look for the origin of the great men of the world and we shall see that they owe their greatness and their goodness, in the majority of cases, to good, true, noble mothers; and yet might they not have been as good or even better had they had fathers as well equipped for paternal duties as the mothers? No doubt, these sons developed well as the result of maternal work and training, but might not the burden have been lighter for the mother, and might not the result have been more satisfactory all around, had the father done his work as he should have done? Surely, the fathers would have been happier in the possession of their children, had they been fully impressed with their duty to them. Too many fathers are disposed to think that if they struggle and fight and keep the wolf from the door, and even secure for their families a goodly quantity

of "filthy lucre" (all of which possibly helps to make their children less strong, less self-reliant and able to cope with the dangers about them), that they have done their duty.

It is the right of every child to have something more than the privilege of calling a man father. It is his right to have that father realize that "filial affection, like patriotism, must be engrained as an obligation ; a thing to blush at if not possessed." If, however, the father absorbs himself only with money-getting and the fumes and frets of trades, professions, or the commercial world during the earlier years of the child's life, need he be surprised later in life to find that he knows not his own nor does his own know him?

The father calls the child into being. Having done so, he assumes a duty which he should not shirk. It is the right of every child to have something more in his father than a mere provider of food and raiment. Does the father want the honor, the respect, and the enjoyment of the sweetest part of life, he must needs make himself acquainted with his child from the day of its birth on. It is as much his duty to study the disposition, character, and general human nature of his child, as it is the mother's ; indeed, he has no more right to shirk his part of the sentimental relations between parent and child, than has the mother. Of course, the father who neglects the material interests of his children, on the theory that what was good enough for him is good enough for them (as has been well said by Pike in the *Century*), "should pay conscience money to his own father." All children have the right to claim that their parents give them the benefit of the mistakes made in raising them ; in truth, parents might well take pointers from horse, bird, and dog-fanciers, and cultivate themselves in the direction of becoming child-fanciers.

I am sometimes inclined to believe that if the children of the world could be consulted, those that have been and are to be, would be favorable to the doctrine set forth by Malthus in his essay on the Principle of Population, favoring the limiting of their number by the discouragement of early marriages and by the practice of moral self-restraint. The state at large would certainly be improved by having the population made better rather than more numerous. The family would be in better form if this rule obtained.

I think the lion had the better of the argument, when chaffed by her neighbor, the hare (possessed of a numerous offspring), on account of the meagerness of her progeny in point of numbers,

when she responded, "But mine are lions!" We will desist, for we might soon get into deep waters when discussing the rights of children from this standpoint. Whether the family be composed of many or few, the fact still remains that the child should have the right to claim that his physical, moral, and mental necessities be looked after.

I think it was Oliver Wendell Holmes who once said that the time to treat some of the ills—mental, moral, and physical—of children would have been to have treated their great-grand-parents.

Children have a right to ask before being born that their parents be healthy. A common sense view of this question should be taken. The State should enact laws preventing the marriage of the criminal, or those diseased mentally and physically, and all who have reached the age of sixty. The child has a right to demand, if such marriages do take place, that it be protected; that preventive measures be taken to guard it against the transmission of unfavorable germs. With the existing knowledge that we have, the child should demand protection against disease in advance of its birth and even of its conception.

Knowing that each and every one of us is a part of all that we have met, we should realize that the child has a right to be protected from improper associations, whether these associations be the germs of diphtheria, scarlet fever, typhoid fever, or worse, the germs that are associated with vice and crime. An authority high in the church has given expression to the thought that if children can be kept under the church influence until the age of seven, they are secured in their faith through all coming time. How many parents realize this fact? The child has a right to demand protection from association with vicious children and ignorant adults. It seems to me that the parent should be jealous of every hour in the early life of his child. Without interfering with romping, playing, and the proper muscular exercise, the parent should be with the child a sufficient length of time each day that passes so as to greatly influence the bent of his mind. The cases are numerous and met with every day, where children with a depraved physical inheritance have been built up out and away from their inheritance into strong, robust, and healthful people. We all know now that which we did not know formerly, that food, in an available form, made into good blood, is the enemy to all the microbes of disease. The medical profession at large has long since been impressed with the importance of the teachings of Graves, the

great Irish physician, and in the value of his words, when he said: "Let there be placed upon my tomb as an epitaph only this: 'He Fed Fevers.'" Koch's bacillus of consumption will, in every case, go to the wall, retire defeated from the field, if met with good rich blood. Rickets, scrofulosis, and all such can no longer hope to cope with the elements of nutrition. Weak, nervous systems, weak minds in children, even to the point of idiocy, are now being fed and furnished with strength. If this be true, and who will deny it, what cannot we hope to accomplish in the way of developing our children, mentally and morally, if we take our cue from those who demonstrate the possibilities of physical development.

Children have a right to demand that the same intelligence be directed toward their mental and moral development as toward their physical good. When we realize that seventy-five per cent. of the deaths that occur among children under five years are preventable, and directly due to errors of diet and improper clothing, we can understand how important that the child from the day of its birth be fed with proper food, in proper quantities, at the proper time, and be properly protected against exposure and chilling of the surfaces by proper clothing. Indeed, if the child can be physically fed, and it can be, long before it is born, is it not our duty to do it? The child that does not die from a cause directly produced by cold or improper food, is placed in a position to be more susceptible to the disease germs ever scattered broadcast in our midst. The illy-fed, the poorly-clothed have a starved nerve system and an impaired equipment, so that their power of resistance is lessened.

Do we expect to protect our children from disease by keeping them in band-boxes or glass cases? No! If we succeed in developing the child up to the age of seven, strong and well, the chances are that he will live a long life and a healthy one. The same reasoning will apply to the child from a mental and moral standpoint. The Klebs-Loeffler's bacillus of diphtheria, the typhoid germ, and the comma-bacillus of cholera, are all bad enough and gravely dangerous to the child, but how much more deadly the two-legged bacillus, the product of the culture of the slums of "Kerry Patch" and "Clabber Alley," to whose constant care the children of some parents are entrusted, in apparently blissful ignorance of the fact that they are moral lepers whose souls are festering in filth to the point of putridity and even gangrene.

An atmosphere of cheerfulness should ever be present in the home. The cares of business should not be echoed and reflected

within the reach of the ears of children. Truly, the sad and sorrowful should be kept from them as a rule, and yet a proper knowledge of all these things should from time to time be allowed. It is true in childhood as it is later in life, that everything in the world may be surely and safely enjoyed except continual prosperity. The refining and improving effects of disappointment and an occasional sad hour should be considered.

The child has a right to be prevented from becoming disobedient. Many are taught to be so by thoughtless mothers. When Johnny is informed that he is not to do a certain thing or things, and that if he does he will be severely punished; and Johnny thoughtlessly disobeys and the disobedience is unnoticed, what is more natural than for Johnny to conclude that mother does not mean what she says, and how natural for Johnny to put little stress upon her injunctions. How surprised he is to find later that his errors receive attention and possibly a hasty and unkind punishment.

In this connection, permit me to say that I think that no child, if properly managed from the beginning, need ever be whipped; in fact, there should be a law prohibiting the whipping of a child by any one, teacher or parent, with a penalty attached for its infraction; said penalty to be a thrashing at the hands of a public whipper. I would favor confining the whipping post to this class of offenders.

An old Chinese proverb says that "rogues differ little; each begins first as a disobedient son," and it might well have said that each disobedient son was educated in the direction of disobedience by inconsistent parents. Business men whose checks can be received for any amount of money, and whose promise to pay would be considered as good as gold, often forget their word to their children, from the beginning of their existence. The commercial standing of the business man is probably at stake and has a money value to him, and this has much to do in developing his high sense of business honor; but it should be of greater merit to a man to rank high as a parent rather than as a business man.

The child has a right to be born into a home where parents realize that the home, after all, is the chief part of life; where the father is not so busy that he has no leisure to laugh, and the whole business of his life seems not to be to get money, more money, and yet more money, that he may still get more. Such a father should recall to his mind the text: "For what does it profit a man if he

gains the whole world and loses the satisfaction of having about him healthy, happy, merry children." Children are born honest and cheerful, with a capacity for happiness—all just as natural to them as good digestive organs, and an appetite for food. The child that becomes dishonest, misanthropic, suspicious, gloomy natured, has often been made so by the treatment which he has received. The child should be granted, if I had the arranging of things, the privilege of selecting the parent and the teacher best adapted to it; and, by the way, the teacher is almost as important to the child as the parent. Our present school system is defective in many ways; chiefly in that the highest priced and best teachers are not the ones in charge of the smaller children. Teachers, like nurses, are born, not made. The individual who does not love children; who is not in sympathy with them; who is not patient, gentle, kind, honest, sincere, trusting, cheerful, and the complete ruler of his own spirit, should not be placed in charge of children.

The kindergarten is all right, except that it serves in some cases as a hot-house to over-develop an already rapidly growing brain. The bright child needs but little kindergarten training. Another objection is that at the tender age, the child is taken from the society of its mother, weaned as it were, and placed to the breast of a stranger, a very proper person, no doubt, and yet not its mother. Long years ago, Hosea Bigelow said in his quaint way: "For it strikes me ther's such a thing ez sinnin' by over-loadin' children's under-pinnin'." There is, indeed, too much over-loading. Many children, before they arrive at the age of ten, the time at which they ought to start to school, are in the position of the spavened and wind-broken thorough-bred which is put upon the turf too young. The old-time school, built in many instances of logs, with numerous openings, permitting free ventilation, situated often many miles away from the homes of the children, necessitating long walks and but few hours in school, seemed inefficient viewed from this distance; particularly did the sessions seem short, being in the majority of instances only three months in the year, but a good lusty mental and physical development was the result. The school year is too long now. It should be cut off at both ends, making the session begin in October and close in May. The discipline in the old-time school was severe, but its course of study less brutal than today. The rod and the various forms of punishment were all wrong, but children did not often die of the severe treatment received from the old masters, though no one

knows better than the doctor that many succumb to the hard requirements of the modern methods. Nervous, sensitive children suffered intensely from the old-style discipline the same as they did from the old severe regime practised in the home. The puritanical way of looking at things was not always the pleasantest. He was a very correct man, viewed from the standpoint of the early rock-ribbed creeds, who admonished his children: "Children, love one another, confound you." But where there was a single delicate one demoralized and injured, sometimes irreparably by harsh rules and customs of those early days, there are a hundred that suffer now from mental stuffing and brain fag. No one would think of placing fifty or a hundred children, either of small or larger growth, at a table with a uniform bill of fare, commanding all to eat the same amount of the same food, good, bad and indifferent, without looking for numerous cases of indigestion and even fatalities to follow; but in the schools this thing is done every day. The child's capacity for digesting this subject or that branch of knowledge, is not considered. Of course, more thought is given to the subject than formerly, but not enough. It is true that the supply of money is often inefficient to make the schools ideal, but the expense could be diminished in many directions and improvements made to follow. First of all, our public school system has no right to pursue a course which educates the few rather than the many. Manual training, both for boys and girls, should be engrafted upon our public school system. The number of studies should be lessened; the time shortened; the teachers should be made to teach. This duty falls to the mothers now largely. The mothers teach their children the lessons, and often wear themselves out in the effort, and the child goes to school merely to recite. More attention should be given to reading, and a part of the time of other branches should be given up to reading interesting matter. If all of the school studies were secondary to habits of good reading, the child would be taught at school as he should be, to be a careful, discriminating reader through life. The child should be taught how to think and to express itself. English composition should be encouraged. I am surprised to see how little attention is given of late to penmanship. The teacher who studies the individuality of the child and gets closely in touch with it, and encourages conversations pertaining to the subjects under consideration, will be most successful; and, by the way, the rule adopted some time ago by our school board, excluding mar-

ried teachers, is ridiculous and absurd. Other things being equal, the married teacher, particularly if she has had children, is the better adapted to understand children and to know their needs. She is in every way better equipped for the work before her than the young unmarried woman, however well educated she may be. The latter, nine times out of ten, takes the position merely to give her an income which will enable her to get married. The married teacher is in the work because she loves it, or from necessity; and the chances are that she desires to remain for life. What business is it to the school-board if she is so unfortunate in some cases as to get a worthless husband who cannot make a living for her? This is her misfortune and the schools are in no way affected, except to be benefited; and, besides, at the present rate of progress in the dislocation of the sexes, the crowding of women into the avocations naturally belonging to men, what are men to do unless they can marry some of the women who have crowded them out, and get food and raiment in this way?

Children have a right to be treated at school and at home, generously, kindly, tenderly, patiently, honestly, and above all, justly. Children are generous in their enthusiasms; they are not deaf to wit, but, perhaps, of all other things, they admire justice most. The sense of humor in children should be encouraged and developed, because the one who grows into manhood without it, loses much of the zest of life. The boy or the man who cannot take a joke is unfortunate. The boy who responded to his teacher when asked how it was that there was no W in the French language, by saying, because of Waterloo, and was given a black mark for his answer, was more fortunate than his teacher, for he was possessed of a keen sense of wit and his teacher was devoid of an appreciation of it. Yes, cultivate the spirit of fun. Truly, if a "little fun now and then, is relished by the best of men," it should be relished by the child, and if it is not relished, there is something the matter with the child. There was a good deal expressed in this verse from The Boys, by Oliver Wendell Holmes:

> You hear that boy laughing, you think he is all fun;
> But the angels laugh too at the good he has done.
> And the children laugh loud as they troop to his call,
> But the poor man who knows him, laughs loudest of all.

Children have a right to be taught that rare talent that grows rarer as the years pass,—the talent of appreciation. They should be

taught to know their blessings, their good fortunes, and the obligations under which they rest, not only to their parents but to their fellows. They should be taught how to render service and accept it; render kindnesses and accept them; to grant obligations and to accept them; and to do both gracefully.

Children have a right to demand the completed cultivation of one of the most important organs given to them,—namely, their voice. They cannot all be made good singers, but the voice of every individual child can be developed in the direction of being beautiful. I believe that nowhere on earth is the human voice more neglected than in America. The number of shrill, harsh-voiced girls that one comes in contact with daily is appalling. Too often not sufficient attention is given to the voice, and the habit of loudness and carelessness of speech is developed. The girl has been badly educated, and the boy as well, no matter what their accomplishments, unless they have learned that the secret of being understood lies more in enunciation than loudness. There are many nerves being wounded and irreparably injured each day that passes, by the beastly harshness and careless roughness of uncultivated voices than are being worn out by over-work or whipped out by alcohol. It will be difficult for one who ever saw the beautiful, angelic Adelaide Neilson, to forget her beauty, but no one who was fortunate enough to have heard the gentle, soothing notes of her lute-like voice will ever forget them. I think that the faithful one in dying, as he approaches the gates of Heaven, may expect to hear notes reminding him of the tones of that voice. Is there anything that is more lasting and that more frequently comes back from the way beyond, to the ear of a boy, even though he has reached his second childhood, than the gentle echoes of a sweet-voiced mother? I recall a big, strong, rough-and-ready man to my mind, who, when dangerously ill, referred to his mother long since dead, and the strongest point he made in her favor was that she was a gentlewoman and so kindly voiced as always to have had an influence over him in life beyond that of anything on earth; and that the memory of her sweet voice came to him ever and often when tired, weary, and worn, and gave him inspiration.

Gentlemen of the graduating class of 1893, the time has arrived for the Faculty to say good-bye to you, and it has fallen to my lot to say it. I know that I voice the sentiments of my associates when I say that every hour that we have passed with

you has been a pleasant one. You have been earnest, honest, faithful students. We have endeavored to be the same, as teachers. We ask that you continue to be as you have been during the time that you have been with us. Continue to be students during all the years of your lives. Remember that the best medical college on earth is nothing more than a kindergarten. Remember that the ablest man that ever lived, that the strongest brained and the sturdiest bodied, could not do his full duty to the profession of medicine; could not return to it a tithe of that which he owes it and receives from it, were he to work every hour of the twenty-four during all the years of his life. The ablest man cannot hope to do his full duty, but the weakest of us can strive in the direction of duty. This class may not furnish even one of the few immortal names that were not born to die, but let us hope that it will furnish a set of men who will never forget the obligations they have assumed. The chief dangers which surround the doctor in this life, are the demons of laziness and fatigue. When unemployed, laziness may take possession, and as time passes and success has crowned your efforts in the direction of becoming established, and you become a thoroughly busy man, the danger of fatigue, physical and mental, will be ever present, and this danger you must fight against. If yielded to, you will cease your studies and seek rest instead, and soon you will have formed the habit of neglecting your books and the recorded observations of workers in the field of medicine.

Never lose sight of the importance of guarding the health of your bodies. A half sick doctor is no doctor at all. The only thing for a doctor to do if broken down, is to quit the profession or die ; therefore, guard against these break-downs.

A most important thing for you is the selection of your location. Take plenty of time to do this. Look the field over well, and when once located, let it be for life. A rolling stone gathers no moss, and there are more rolling stones in the medical profession than in any other on earth. Too many doctors change their locations too often. The mistake was made originally in not taking plenty of time in the selection. On general principles a good man does well to locate where he is already known, even where he has grown up. While it may be true that a prophet is not without honor, save in his own country and in his own house, that thought does not apply to doctors, for they are not prophets. It matters little whether you select the city or the country, as the work before you is a noble one. The doctor may well say with

the prophet of old, "Give me neither poverty nor riches;" because if he does his duty, that is about what he will get anyway. The Good Book must mean doctors when it says that "he that maketh haste to be rich, shall not be innocent." Be of good courage, for just as sure as the day comes after the night, if you follow in the lines which you have laid out, success will come to you. If thee faint in the day of adversity, thy strength is small. After all, it is not adversity that tries men most. It is prosperity. Your severest struggles will come after your success has come; and, by the way, you will often find that prosperity is the severest test not only of yourself, but of your friends. Be not afraid to cast thy bread upon the water, for even though it be many days before it returns, it will surely return, and, more than likely, draw with it loads of fishes.

Be gentle, kind, good, patient, and faithful to your patients, but do not expect them to be so to you. You will find that not only Republics are ungrateful, but patients as well. Your tastes, associations, and bringing up may carry you in relation with church and society work, and possibly in the direction of one or the other of the political parties; but my advice to you is to keep in mind the words of Solomon, "Be not righteous, over much." I know men who are better Presbyterians than they are physicians. The medical profession is a jealous mistress. Concentration is necessary to a proper understanding of your work, and while never losing for one moment sight of the necessity, if you would be happy now or hereafter, of having faith in the living God, let other people in the community run the churches. Let your chief prayer-book be a medical text-book; let your prayer meeting be the medical society.

You will find in every community one or more members of the profession who seem to be washing their hands with invisible soap in imperceptible water; who are sanctimoniousness personified; who work the church for all there is in it; but let them do it. You can well afford to follow the thought that people want a doctor for his skill and not because he tries to walk their particular chalk-line.

Among the many annoyances with which you will have to contend, quacks and mountebanks will abound. The honest quack who takes the page in the local paper and prates about his skill, is not the most annoying. Of the general quack, I think the most contemptible is the one who would sneak into a practice under the

mantle of the meek and modest one; under the banner of the bleeding blessed Jesus. But to all of them, give naught but indifference. Above all things, do not dignify them by discussion. Be patient and tolerant with such, and remember that they are so partly because they were built so and partly because association and training were at fault. Do not certainly dignify the irregulars of the profession by discussing them with the laity. Remember that there can be no sectarianism in medicine, and, while admitting that there are more ways than one of skinning a cat, grant to any and all the privilege of skinning their particular cat in their particular way. Argumentation on such matters, is time lost. I agree with Tristem Varick that there is no use in arguing with any one. It is talking metaphysics to a bull. The first thing you know, you get a horn in your navel. Do not cultivate local fraternal societies. Membership in them is all right, but let it not be at the expense of your time. There are doctors who know more of masonic matters than medicine, and the public may safely avoid them. Each doctor should take his place in the community and bear his part in the duties of citizenship and social life. Every doctor should vote and if needs be use his influence for the best man, but I implore you, avoid politics. A political doctor, manipulating caucuses, presiding over party central committees, directing and controlling the "hoodlum" vote of cities, large or small, runs the risk soon of being known more as a bummer or a boodler than as a scientist or a friend of humanity, and is a sight sufficient to make the spirits of Hunter, Harvey, Ephraim McDowell, Hodgen, and Gross become jangled and out of tune. Join yourself to no party that does not carry the flag and keep step to the music of the sciences.

So far as social life is concerned or matters pertaining to society, do your duty and your social position is fixed. You need envy no Mr. Moneybags on earth, because, after all, a man's place in this world is most secure who makes the most pronounced record of doing good. The true aristocracy is the aristocracy of usefulness and brains. You cannot hope to be a social success and a good doctor. The dear old autocrat of the breakfast table has said that "no fellow can be a thorough-going swell unless he has three generations in oil; mind you, daguerrotypes won't do." The only time that a doctor can cut a swell is when he lances a boil. You cannot hope to be a social success even were you to attempt it, except at the expense, at the absolute sacrifice of your profession

and the best interests of your patients. I advise you to avoid society, for within its domains nimble heels are of more value than brains. If you doubt it, ask Ward McAllister. "It is a despot, and those brought into its courts are slaves." Fortunately for you, a doctor is not only an exception when it comes to a question of jury service, but he is an exception to all the rules of good society; and, by the way, what a whited sepulchre this same society is. It may, indeed, be beautiful outwardly, but who knows better than a doctor that within it is full of dead men's bones, and fuller of the bones of lovely women who have given themselves as sacrifices to its demands.

Remember always that a man's best interests are close to him and lie close about his feet; that "he most lives who thinks the most, feels the noblest, acts the best." Work to develop yourselves in an all-around way. Have your little recreations and hobbies if need be, but let them be merely incidental and only with a view to your best good. Keep in touch with general literature. Your mind will be brightened and you can better grasp the technicalities of your profession. Develop the poetical side of your nature. It will be of much pleasure to you in your dreary round of work. It is Lytton, I think, who says: "Poets are all who love, who feel great truths and tell them, and the truth of truths is love;" in other words, poetry and sentiment will refine and ennoble you. It is a mistake to suppose that a poet must write. The greatest of all never put pen to paper. What sublimer poetry than the parables of Christ, but they were voiced, not written. All who love the beautiful are more or less poetical. Cultivate the love of the beautiful, and, at the same time, cultivate human sympathy. Do not be afraid to be reasonably sentimental. A hog has no use for sentiment, but then hogs are of no value except for fat food and pepsin. Develop cheerfulness. Develop the disposition to overlook the weaknesses and frailties of man. No one on earth needs more to be forgiving, to be patient, to be kind, to be thoughtful, to be a commander of his own spirit, than the doctor. Never have any grievances. Read your code of ethics and then boil it down and throw the scum and *débris* away and you will have left to you the only code that the profession requires,—the unwritten law which governs gentlemen, and that is all summed up in the Golden Rule, "As ye would that others should do unto you, do ye even so to them." Don't waste your time trying to discover and punish the code breakers. It is a thankless task.

The thought constantly before the doctor should be, "put yourself in his place." Surely, then, duty is more likely to be well done and charity exercised.

Do not believe anything that a patient may say in derogation of another doctor. Above all, give no ear to statements said to have been made by other physicians reflecting upon yourselves. Ninety-nine times out of a hundred, they have been misunderstood and modified in the repeating. Believe nothing disagreeable and unkind that you hear of any one, and very little that you see or know to be true.

It goes without saying that the more you exercise your memory within reason, the more you develop it. Constant effort should be made in this direction. It will be well for you also to cultivate your "forgetter." You will hear many things and have reposed in you many confidences which will affect, in a most sacred and vital way, the interests of others. Form the habit of forgetting these things. This will soon be done if you never repeat them and strive not even to think of them. Discuss the personalities and facts pertaining to your cases nowhere; not even at home to your own wife and family. More doctors are gotten into hot water by an inadvertent word dropped by themselves and repeated, than by any other means.

Of course, there will come a time, and it may be near to many of you, when you will meet her "whose very frowns are fairer far than the smiles of other maidens are." Weigh well your step. The doctor should either be well married or not at all. This, you may say, applies to all, but it applies more to doctors than to others. The well-married doctor, other things being equal, is the better doctor. A man has to be a mighty good man, a very broad-gauged man, and a very strong one, not to become selfish and narrow by living alone. The doctor's wife must have a goodly store of patience, endurance, and amiability, and as the doctor's patients always have to show their tongues, she must religiously never show hers. She must be so thoroughly unselfish that she cannot be jealous, because she will soon learn that her husband belongs more to other people than her.

Remember all things work together for good to the members of the medical profession who love science and keep its commandments; whose hearts beat in sympathy with humanity, and who work without ceasing. In this connection, permit me to say that you fail in your duty to yourself, and to those depending upon

you, and to the community, unless you properly develop your business end. In the beginning of your career, be ready always to serve all ; to give your strength and knowledge without money and without price, and if you cannot get something to do otherwise, I would almost say that you are justified in offering premiums for opportunities for serving sufferers. The poor you will find your truest and best friends, and grateful, too, they are ; and the sweetest fee that you will ever receive will be the hearty "God bless you," of the pauper patient. Study your cases ; serve them well, and have in whatever community you may locate, walking advertisements, giving evidence of your skill, and this is the only advertising that you will need. As you advance, make it your habit, in a careful and discriminating way, to be paid for your services where it can be done. Later on, you are justified in declining your services to those who are able to pay and will not. Systematic care will soon enable you to weed out the unworthy and unappreciative. As you grow older in your profession, resolve to develop some special skill. Your tastes will materialize, and you will know in what particular direction you may be considered an expert, and now begin to weed your practice. Get rid of your ambition to have the largest visiting-list in the community. Do less work and better work. Pursuing this course, you need not, as many do in the profession, grow old ungracefully, and with hat in hand anxiously seek patients and make frantic efforts to hold those which you have had, but who are now disposed to go elsewhere. Remember that this is the age for the young man. More and more the world wants activity, drive, alertness, energy, and will have it, and with the progress of years, undoubtedly, this tendency will increase, and it behooves every one of us to realize that the time for us to do our best work, is before we are sixty.

Let us know to the fullest that "When he is forsaken, withered and shaken, there is nought an old doctor can do but die." But we need not be "forsaken, withered and shaken," if we pursue the right course. By mingling with the young in our profession, by cultivating a love for children, Nature, a sympathy for the suffering, we will keep our hearts young, and as we cross over upon the shady side of life's mountain, though the bright and beaming sun be behind us, the nearer we approach the dark valley, the more joyous will be our thoughts, for we will ever be cheered by memories of the past, by singing birds and babbling

brooks, by being completely in touch with the young and the gladsome, the good, the true, the beautiful, and the jolly.

Though there may be aches, pains, disappointments, sadness, and clouds, we will have a balm for every pain; something to compensate us for every disappointment; a comfort in others' gladness for our sadness; and beyond the darkness and the clouds, another sun will be shining, and that will be ours, together with a realization of that which is expressed in one of the sweetest words in all our vocabulary—rest.

And now, gentlemen of the graduating class of 1893, on behalf of the Faculty of the Marion-Sims College of Medicine, I bid you a fond farewell.

As the years come and go, may you have all the success and honor, all of the sunshine and good cheer, and all of the sweet home-life you could wish for. "Look not mournfully into the past. It comes not back again. Wisely improve the present; it is thine. Go forth to meet the shadowy future, without fear and with a manly heart," and may God bless you every one, and keep you from harm.

Original Communications.

SOME OF THE CAUSES OF INDIGESTION AND MALNUTRITION IN NURSING INFANTS.

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It is the experience of all physicians that occasionally breast-milk, the natural food of babies, may cause serious disturbances of digestion. When a nursing child fails to thrive, suffers much from colic or constipation, loses in weight, vomits, or has dyspeptic stools, we may attribute these symptoms almost certainly to poor or scanty breast-milk.

The object of this paper is to show the very close association between the health of the mother and the composition of her milk. If the nutrition of the mother is depressed from any cause, the various food elements in her milk become so altered in proportion that they will infallibly cause indigestion in her child.

To make an analogy: If you order a fare of cabbage and pork for a woman of sedentary habits, she will be apt to complain most bitterly of dyspepsia, and, in many instances, breast-milk is as unsuitable for a baby as are cabbage and pork for a delicate lady.

Now, indigestion in nursing children is worthy of our serious consideration. The infant may present such serious disturbances of the digestive and nervous system, that a change in diet may seem to be an urgent necessity. All of you will agree that giving a dyspeptic baby an artificial food is an exceedingly undesirable thing. The most scientifically prepared mixture of cow's milk, or of any dextrine food, is far inferior to human milk.

It is my opinion, that in a considerable number of cases weaning may be avoided, or be postponed by improving the mother's health, and thereby transforming the unnatural secretion of her breasts into normal milk. Here it is necessary to speak briefly of the physiology of lactation: Human milk contains virtually the same food elements as the dietary of an adult. There is a large proportion of water—eighty-eight per cent.—about four per cent. of fats, easily assimilated, potential in the formation of heat, the undigested residue acting as a natural laxative. We find from one to two per cent. of complex albuminoids, six to seven per cent. of a carbo-hydrate sugar of milk, and a minute quantity of mineral salts.

Of the food elements of human milk, the albuminoids are the most variable, the fats are next, and the lactose least of all. The more nearly the mother approaches an ideal standard of health, the more closely will the albuminoids approach two per cent. and the fats four per cent. of the total bulk. Both are elaborated by the metabolism of protoplasm in the cells of the mammary gland, all of the food elements, fats, albuminoids, and sugar are chiefly formed from proteid food. A civilized woman should live principally upon a fare of meat, poultry, and vegetable proteids, to secure a normal milk. If she be given large quantities of fatty food to remedy any deficiency of cream in her milk, she will probably develop an indigestion, and the fats in her milk will notably diminish.

In amount, the quantity of milk varies from one to three pints daily, increasing with the age and necessities of the child. A great advantage of lactation is that a baby suckled by its mother is seldom overfed. The position which the infant takes in nursing, and the slight effort and subsequent fatigue required to empty the collapsing gland, tend to prevent overfilling the stomach.

Yet this marvelous adjustment of human milk to the baby's needs is often disturbed. The composition of the milk is an index

of the health of the mother. If she be ill, exhausted, or anemic, a marked change takes place in the milk. The percentage of albuminoids becomes larger, and the fats are diminished.

Now, in the infantile economy, the fats appear to be most essential and most easily assimilated, the proteids are less necessary, and when present in any excess, are digested with difficulty, causing pain, vomiting, and diarrhea.

Frequent nursing may also cause a change in the solid constituents of milk. The fats and albuminoids may be thus increased from twenty-five to fifty per cent. above their normal limits. Among the higher classes, the anemia, which haunts the Anglo-American woman, undoubtedly has an important effect in producing poor milk. As milk is elaborated from the blood, how can a normal secretion be made from poorly oxygenated blood? Lastly, in civilized woman, the duration of lactation is often considerably shortened; a certain number of mothers have little or no milk after the fifth or sixth month. All of these facts explain much of the dyspepsias and malnutrition of sucklings.

As practical physicians, we judge of the good or bad qualities of breast-milk by the baby's appearance and behavior. The child should be plump and good-humored, should gain continually in weight, and should have from one to three semi-fluid stools a day, containing no undigested casein. To form a correct idea of an infant's health, it should be weighed once a week, the stools should be examined for undigested milk, and the cause of attacks of colic and restless nights should be carefully investigated.

In speaking directly of indigestion and malnutrition in nursing babies, it is convenient to first discuss—

1. Those cases in which the supply of breast-milk is merely inadequate for the infant's needs.

2. Those in which there is abundant milk, but where the child is irritable, dyspeptic, and losing weight, showing that the milk is unsuitable for its digestion.

Breast-milk is often secreted in very small amounts in the first weeks of lactation. In a certain number of cases, relatively small, I believe this condition may be due to imperfect development of the mammary glandular apparatus, but in a large number of cases, a scanty supply of milk is caused by improper hygiene, unwholesome diet, lack of out-of-door exercise, overwork, late hours, worry, insomnia, anemia, constipation, or too lengthened intervals of nursing.

The early failure of the milk may be due to an inadequate diet, directly after confinement, or there may be septic processes in the pelvis, the result of injuries to the parturient canal. The baby should be given the breast at proper intervals for at least two weeks, for the secretion of milk may be delayed. Too little persistence is usually shown. The attendants are entirely too ready to resort to artificial feeding.

Sore nipples are not always a valid reason for weaning. It may, however, happen in the first few weeks or months of lactation, that, although the baby is regularly nursed, it is not well, and the mother may be led to believe that her milk is too scanty or that it is unfit for the child's digestion.

The signs of an inadequate milk supply are :

1. The child will nurse for a long time, perhaps a half hour, before it is satisfied ; generally the breasts are emptied in ten to fifteen minutes.

2. The child will cry as if hungry, after nursing, is apt to be peevish and restless.

3. A poorly nourished baby is often plagued with wind-colic, the result of insufficient food. It is commonly constipated, having a small hard stool every two or three days.

4. The baby is weak, cold, languid, has flabby muscles. It has a stationary or diminishing weight.

Now, this phase of infantile atrophy is of frequent occurrence in the easy classes of society, and is a very serious thing if it take place in summer. When a physician finds the milk supply failing, and the baby in consequence deteriorating in health, he should carefully question the mother as to how she eats and sleeps, whether constipation is present, as to the amount of household work she does, and whether she takes a daily walk. Very many times the breast-milk may be increased up to the needs of the child by requiring the mother to go out daily into the open air, and by the avoidance of exhausting domestic duties.

To illustrate how a woman in fair health may from faulty hygiene have a very scanty supply of milk, and how, by the adoption of a proper regimen of diet and exercise, the amount of breast milk may be increased up to the needs of the child, I will relate the history of a case :

The mother was a strong, healthy, young, primapara. The child, a boy, was born after a normal labor ; weight at birth, seven and one-fourth pounds, including one pound of clothes. At first the baby was,

with difficulty, induced to take the breast; after awhile it was nursed at intervals of two hours. I saw the child when it was four weeks old. Its weight was still seven and one-fourth pounds, but the mother declared that it was thinner than when it was born. The baby certainly presented an exceedingly atrophic appearance. The arms, legs, and body were wasted and wrinkled; the skin was cold and livid; temperature, normal. There was a foul-smelling stool after using a gluten suppository every two or three days. The baby was exceedingly fretful; it vomited occasionally, suffered a good deal from colic, and had worn the mother out by crying night and day.

My patient told me that she nursed the baby every two hours. The baby would usually hold the breast for half an hour, and then was seldom satisfied. She said that her breasts contained but little milk, and that, in her opinion, the child was half-starved. Her nipples were not sore; she was constipated and suffered from dyspepsia; she had not been out-of-doors for five weeks, although previous to her confinement she had led an active out-of-door life. It was evident that the baby's condition was due to lack of food, and that the mother's unhygienic habits had diminished her breast-milk. I directed her to take a daily walk; if possible, to go out twice a day; to nurse the baby every two and one-half hours for ten minutes, and afterwards to give the baby a weak cream mixture in a bottle, of which it might take as much as it wanted. My idea was to have the breasts regularly emptied, and to give the baby enough of the cream mixture to satisfy its appetite. As a result of this procedure, the child soon ceased to cry, the colic and constipation disappeared, and the baby rapidly grew plump and strong, and in nine weeks had gained five pounds. I visited the mother from time to time, and she reported that her health was greatly improved, and that her breast-milk was much increased in amount. January 2, 1892, she reported that the child would only take two or three ounces of the cream mixture a day, for her milk was almost sufficient for the baby's needs; she certainly had three times as much milk as nine weeks before.

The regular emptying of the breasts by the baby had supplied the physiological stimulus to the mammary glandular apparatus, and daily walks in the fresh, sunny autumnal air had so revived the mother's health, that in a relatively short time the secretion of milk nearly equaled the baby's wants. At the seventh month of lactation, the milk diminished, and the child was given a cream mixture.

The value of a correct hygiene and of regular out-of-door exercise in increasing a scanty milk supply has been demonstrated by Dr. T. M. Rotch, in an article on the Management of Human Breast Milk in Cases of Difficult Infantile Digestion (*Archives of Pediatrics*, November, 1890).

If it will be found impossible to bring the secretion of milk up to the needs of the baby, the child should be given in addition a small quantity of artificial food, but under no circumstances should it be entirely weaned. The baby may be allowed to nurse five or six minutes, and then should be given enough of a weak cream mixture to satisfy it. All of the breast-milk should be utilized ; even a small quantity of human milk will assist in the digestion of a subsequent feeding of cow's milk.

Another phase of infantile indigestion may occur when the secretion of milk is so copious that it oozes from the breasts in the intervals of nursing. In this class of cases, although there is enough milk, still the baby will not thrive. It may be very fretful, cry with frequent attacks of colic, will often vomit or pass lumps of undigested casein in the stools ; the child may even have convulsive or feverish attacks. The deterioration of the health in children may be so rapid that in two or three weeks they may present grave symptoms of atrophy.

When a suckling presents several or all of these symptoms, we may correctly infer that the milk is so charged, either from maternal ill-health or faulty hygiene, that it is unfit for the baby's digestion. If the breast-milk be analyzed, marked changes in the proportion of fats and albuminoids will be found; the albuminoids will not only be increased in amount and changed in character, but the percentage of cream will be lessened. An infant will generally show signs of dyspepsia and malnutrition when the albuminoids are more than two and one-half per cent., and the fats are less than three per cent. Casein, whether human or bovine, when present in excess, will cause colic by its slow, painful digestion ; often there is persistent vomiting.

Hence, when a nursing child is seriously disturbed in health, it is expedient to make a thorough examination of the mother and wet-nurse, and to direct a chemical analysis of her milk, and to question her closely as to her health and the routine of her life. Even so insignificant a matter as tight shoes may so harass a woman that her milk is unfit for her baby to digest. (See analysis, 8, 9, and 10.)

I have here a chart showing—

(1) The condition of the mother ; (2) Analysis of her milk ; (3) Health of the child.

Many of the cases are taken from Rotch's paper, before alluded to.

	Water	88.	88.51	87.70	89.17	89.60	83.50	89.61	86.89	90.10	87.59	88.95	87.20
	Solids	12.	10.49	12.30	10.83	10.40	16.50	10.39	13.20	9.90	12.41	11.05	12.80
	Fat	3-4.0	1.62	3.39	.62	1.37	5.44	0.80	3.05	.65	3.34	1.83	3.62
	Albuminoids ..	1-2.0	3.54	2.52	4.21	2.78	4.61	4.50	3.89	3.82	2.61	4.77	3.44
	Sugar	6-7.0	6.10	6.40	5.80	6.10	6.25	5.00	6.10	5.25	6.30	5.24	6.49
	Ash	0-2	0.17	0.18	0.20	0.15	0.20	0.09	0.16	0.18	0.16	0.20	0.26
		1	Normal milk.										
Rotch.		2	Mother, puerperal eclampsia; albuminuria, one-fourth per cent.; child ill.										
Rotch.		3	Same case; breasts regularly pumped; out-of-door life; trace of albuminuria; child well.										
Rotch.		4	Effect of mental anxiety; child ill.										
Rotch.		5	Mother menstruating; child restless.										
Rotch.		6	Milk of a wet-nurse taking too rich food; child vomiting curds.										
Rotch.		7	Milk of a pregnant woman; child ill.										
Rotch.		8	Mother eating heartily, no exercise; child suffering from colic and vomiting.										
Rotch.		9	Mother taking exercise; feet sore from tight French shoes; child ill										
Rotch.		10	Mother walking two miles a day in easy shoes; child well.										
Snow.		1	Mother weak, suffering from dyspepsia and headaches; child colic, vomiting curds, curds in stools.										
Snow.		2	Mother improved in health; baby no colic, only occasional regurgitation of milk.										
Snow.		3	Mother suffering from loss of sleep and anxiety from nursing a sick baby; mother with a bloody uterine discharge.										
Snow.		4	Milk of a woman with cracked nipples; baby colic, curds in stools, losing flesh.										

Below will be found a series of exceptional cases selected from a large number of analyses, illustrating peculiarities of infantile digestion. Infants all digesting well and gaining in weight.

HUMAN BREAST-MILK ANALYSIS.—ROTCH.

	1	2	3	4	5	6	7	8
Fat	4.37	3.76	3.16	3.82	2.96	2.09	2.02	2.36
Milk	6.30	6.95	7.20	5.70	5.78	6.70	6.55	7.10
Sugar	3.27	2.04	1.65	1.08	1.91	1.38	2.12	2.20
Albuminoids	0.16	0.14	0.21	0.20	0.12	0.15	0.15	0.16
Ash	85.90	87 11	87.78	89.20	89.23	89.68	89.16	88.18
Water								

These tables are most interesting, for they not only explain the cause of infantile indigestion, but demonstrate that an improvement may often be obtained after the adoption of a proper regimen. As a matter of fact, the treatment of these is principally hygienic, the troubles caused by menstruation or a cracked nipple soon pass away. The woman should lead a placid, comfortable life. She should be relieved from excessive household work. To transform poor milk into good, to decrease the undigestible abuminoids, and to increase the fats, no means is better than daily walks (below the point of fatigue) in the open air. The tonic effect of out-of-door exercise is more efficient than any medication at our command. A very important problem is the feeding of the baby while the milk varies from the normal standard. I will say that when you have secured a proper hygiene for the mother, a rapid improvement usually takes place. If the baby be not acutely ill, it may certainly take some of the breast-milk. It will usually digest the milk; or may be allowed to nurse four or five minutes, then be given a few teaspoonfuls of sterilized water, then be allowed to satisfy itself at the breast. The breast-milk is thus diluted in the baby's stomach.

To illustrate the causes of indigestion in a suckling, and also to show the improvement following good maternal hygiene, the following case is of value:

The child, a girl of six weeks, was the offspring of a healthy Anglo-American mother. Child was nursed every two hours. The mother had so much milk that it oozed from her breasts; nevertheless, the baby had been very fretful for two weeks. It was plump and of good color; it occasionally vomited after feeding; one stool a day. The baby seemed in great distress most of the time; it had cried all night and all of the daytime for two weeks. An examination of the child's ears,

throat, skin, chest and abdomen, showed nothing out of the way. On closely questioning the mother, I found that she had not had an undisturbed night's sleep for a long time; also that she was constipated, had a stool every two to three days; that she had a cracked nipple, and when the baby nursed she suffered agonizing pain. Finally, she had not been out of the house for six weeks.

My idea of the case was that the baby was plagued with indigestion from an excess of albuminoids in the milk, and that this altered milk was due to a sore nipple and lack of fresh air. The mother was directed to nurse the baby for five minutes, and then to give it four to five teaspoonfuls of sterilized water, and then to allow child to have all the breast-milk it wanted. The sore nipple was treated and the mother took daily walks, and was much improved in health. Almost immediately the baby ceased to cry, and grew good-humored again. After a week the mother stopped diluting the milk. I strove in vain to obtain a sample of milk for analysis. After the baby was better the chemist received a sample, whose analysis showed a correct proportion of fats and albuminoids.

The next case shows how maternal dyspepsia and debility may cause the secretion of milk difficult of digestion:

Baby, weight at birth, seven and a half pounds, four weeks old, suckled by Anglo-American mother. Since its birth the child had been very fretful, crying night and day. It vomited curdled milk after each nursing, had six or seven stools a day; yellowish, stiff with undigested casein, frequent attacks of colic; nevertheless, the baby was plump and strong, showing good powers of digestion to assimilate its unwholesome food. There was slight rachitic beading of the ribs; the thighs and perineum were red and excoriated.

Condition of the mother: Age, thirty-eight; only moderate strength and vitality; has convalesced rapidly since confinement; has scarcely been out of doors for five weeks; is easily tired, and has for years been tormented with flatulent dyspepsia. Associating the dyspepsia of the child with that of the mother, I suggested an examination of the milk, and found (see first table, No. 1,) an excessive amount of casein. The cause of the indigestion was evident. The mother was given Hcl. and peptonoids, and advised to walk or ride daily. During the following three weeks both mother and child were better, although twice, for a couple of days, the baby had numerous diarrheal stools. On July 26th, the milk was again examined, showing a remarkable improvement. (See first table, No. 2.) The mother was nearly relieved of her dyspepsia and felt rested. The child now rarely had attacks of colic; the stools showed no undigested milk; the condition of the child was fairly satisfactory, although the percentage of casein was too great for easy digestion. I regarded it as a great achievement to carry the baby through the hot season without

weaning or serious illness. In October I again saw the baby; it had gained in weight; did not vomit; it, however, had frequent attacks of colic, and occasionally passed undigested casein in its stools.

The mother was unable to take much exercise, having very exacting domestic duties. Her dyspepsia had returned, and she was harassed by headaches. As the hot season was past and the baby's digestive organs were relatively mature, I advised weaning and the administration of a weak cream mixture. My little patient again became good-humored, having no longer an excessive quantity of albuminoid to digest.

This case illustrates why a child receiving an abundant supply of breast-milk may be afflicted with indigestion; also how quickly the fats and albuminoids in human milk may approach a normal standard with improved maternal health; and, lastly, how quickly the milk may again deteriorate with recurring ill-health.

A third case will show how pain from a cracked, deformed nipple will alter milk:

Mother, Anglo-American, had been unable to nurse her first child. With the second she had a long difficult instrumental labor. I saw the baby when it was four weeks old; child emaciated, fretful, passing curds in its stools, analysis of milk (See first table, No. 4.) Mother had a painful, cracked nipple. The milk was insufficient in quantity and absolutely unfit for the child's nutrition. All efforts to improve the milk failed, I think, on account of deformity in the nipple. The act of nursing produced such intense pain, that the breast-milk was altered in character. Child weaned and reared on a weak cream mixture.

I am well aware that this paper does not discuss all of the causes of indigestion in nurselings, nor does it relate a series of brilliant cures. Any assertion that poor milk can be changed into good milk would be strongly charged with falsehood. In conclusion, I would say that dyspepsia in sucklings receives too little thought and attention from the profession. Illness in a nursing woman means poor milk and a sickly baby. The foundations of constitutional weakness and life-long dyspepsia may in this way be laid. Very often skilful treatment of the mother will relieve both mother and child. Surely, no epoch in a woman's life is more important than that when her own well-being is associated with that of her child.

476 Franklin Street.

The Belgian Academy of Medicine has offered a prize of 4,000 francs ($800) for the best essay upon the pathology and treatment of epilepsy.

THE CARELESS EXAMINATION OF URINE.[1]

By FREDERICK H. STANBRO, M. D., Springville, N. Y.

An accurate understanding of urinary analysis in its relation to clinical medicine is absolutely essential for a clear comprehension of any disease. This statement is especially true in typhoid fever, pneumonia, scarlatina, and, in fact, in all the acute blood diseases, and also with acute surgical conditions. In all these instances a careful study of the urine frequently proves to be a more accurate index of the rise and fall of the diseased process than any other single symptom, enabling the physician to foretell with accuracy an approaching improvement, or a threatened exacerbation, which is to speedily terminate in a fatal issue. It places him in a position to know what to expect, and better prepare him for coming emergencies.

The general practitioner believes thoroughly in the examination of urine in certain cases, and analyzes specimens, but he does not do so as a routine practice in each case, nor does he do it as carefully as he might, or should. In a case which, in his judgment, needs any analysis, he asks for a specimen of urine ; an ounce or two is brought to his office in any kind of a bottle, which is set away for an hour of leisure, which may be today and may be tomorrow. Then it is examined for its specific gravity, albumen and sugar, if his bottle of Fehling's solution is not empty. Thus he has made an examination of urine ; and, if the results are negative, no further attention is given to this part of the human economy, a part—the eliminatory part—which is just as important in itself as the feeding or nursing. He does not know how much is being passed daily ; no idea of the amount of solids excreted. After such an examination, do you wonder that the busy practitioner sees no great importance in routine urinary analysis ? He thinks he has learned nothing, has lost his time, and feels that the work was unnecessary, and, after a few such trials, it must be a case of unusual gravity or peculiar symptoms that leads him to make the next examination of urine.

The general practitioner, who is often a country practitioner, in his varied duties and miscellaneous practice, feels himself to be well equipped in all the branches of medicine coming to his daily notice, but exact and thorough in no particular line. He can diagnosticate a pneumonia, but cares little whether it is the upper or lower lobe that is involved. He can diagnosticate a fracture of

1. Read before the annual meeting of the Alumni Association of the University of Buffalo, May 2, 1893.

the neck of the femur, but is not particular whether it is intra- or extra-capsular. He can treat successfully a case of typhoid fever, not being perplexed over the question as to whether it is or is not of germ origin. Exactness he leaves to the specialist, and especially exactness in the analysis of urine.

If the patient's urine shows no albumen or glucose, his responsibility is ended; but if albumen or glucose does appear, he does not feel competent, or have the time or apparatus to make a quantitive examination.

This is a mistake which should be overcome. It does not take as much time as he thinks to examine carefully a specimen of urine; less than fifteen minutes will give all the necessary knowledge of each specimen, and any extra time he gives to an obscure case, is not time lost to the patient or practitioner—rather the contrary.

The apparatus needed is cheap and simple of manipulation, and the skill, only that which he uses daily and thinks nothing of.

In this short paper I shall lay stress only on the examination of urine for albumen, glucose, and urea; not that these are the only important substances, but rather the most important, for which a test should be made.

No examination of urine is of any value if the daily quantity is unknown; no finding of albumen or sugar is of value, if the knowledge ends there, and the quantity of albumen or sugar and their daily increase or decrease is not learned. To insure himself from error, the testing must be made not once, but many times, to learn if the abnormal product be permanent or transitory. He might as well examine his patient's lungs once, in a case of pneumonia, and never do it again, or only examine a fractured limb when applying the primary dressing, as to leave the urine after giving it one cursory examination.

Albumen can be easily discovered when present by the much used heat and nitric acid test; but we must take the precaution of filtering the urine, if it is at all cloudy, lest we miss a trace of albumen which may be of extreme importance. Another common source of error is the presence of pus, which, upon testing, shows presence of albumen and leads to wrong conclusions. Urine suspected of containing pus should first be boiled with a few drops of liquor potassæ and filtered before testing for albumen.

For the quantitive examination, the method used by Professor Austin Flint is simple, accurate, and easily made. After testing

by heat and HNO_3, he pours the tested urine into a graduated cylinder and lets the precipitate settle, after which he estimates the quantity from the graduations as being one-tenth, one-fifth, or one-half by volume. The information gained is sufficient, and the method within the power of all.

Fehling's solution, freshly prepared, or Trommer's test, with cupric sulphate and liquor potassæ, are fairly accurate tests for the presence of sugar. Doubtless, Trommer's test is the safest to use, because cases of diabetes are of common occurrence, and Fehling's solution spoils after standing, and must be freshly prepared for each test.

Dr. Geo. H. Blackham, of Dunkirk, has prepared a formula in which C. P. glycerine is used, which remains perfectly staple and is always ready for use.

W. H. Porter, of the Post-Graduate School, New York, says that for the general practitioner, a fair idea of the increase or decrease of the amount of glucose may be obtained by each day getting the daily amount of urine passed and taking the specific gravity. A more accurate and scientific method is by the yeast test, now made so simple and convenient by using the apparatus of Max Einhorn, of New York. The apparatus consists of a curved tube, one arm of which is enlarged into a bulb, the other arm being graduated. A small amount of compressed yeast is thoroughly mixed in a test tube with the urine, and then poured into the cylinder and set away for twenty-four hours. The following day the CO_2 evolved has displaced the urine, and the height of the gas is shown by the markings on the cylinder, which give the per cent. of glucose in the urine. The great advantage of this saccharometer is that you can say the following day whether the urine contains glucose or no; also the quantity of glucose.

Urea is a substance of whose presence too little notice is taken. Its importance cannot be overestimated, as it is the principal product of retrograde changes of nitrogenous materials, and, next to water, is the most abundant and important ingredient found in normal urine. If it be retained in the system, it is a true poison, and if the retention be marked and not relieved, death follows. Measuring the quantity in the urine is a guide to its accumulation in the system and a warning of convulsions or death, as well as a guide to the proper treatment to prevent these catastrophies.

Of the many methods of estimating the amount of urea in urine, the following by Dr. Chas. Doremus, of New York, is the

most practical : A curved tube, similar to the saccharometer of Einhorn, is filled to the bulb with a known solution of hypobromite, and then with a pipette the urine is slowly introduced. Rapidly the urea is decomposed and the nitrogen (N) fills the upper end of the tube, displacing the urine into the bulb. When the action has ceased, the graduations show the number of grams or grains of urea to the c. c. or oz., then, by knowing the amount of urine passed during the twenty-four hours, the daily amount of urea is easily found.

Before closing, a word should be said about examination of urinary sediments.

Now-a-days the aid of the microscope in diagnosis is almost a necessity, especially for the general practitioner, who is often at a distance from cities and the help of specialists. In all diseases of the kidneys, the microscope gives much information that cannot be otherwise obtained, and without which the physician is at bay. By the aid of the microscope he gains knowledge by which he can diagnosticate earlier, treat more scientifically, and foretell more accurately than by any other single help.

How better can we judge of the workings of the human engine than, knowing the amount and kind of fuel put in, we learn the exact amount and peculiar kind of waste thrown out? With this knowledge we can accurately judge the action of the body and see for certain whether there is a gain or loss. By an accurate knowledge of the excreta we can know wherein the economy is at fault and what function is not being performed. With such additional knowledge, who can say we are not better prepared to do battle with disease and death ?

How often do obscure diseases grow plain and clear after an examination of the urine, showing, it may be, the cause of the constant vomiting to be an undiscovered and unsuspected Bright's disease, the cause of an attack of so-called asthma to be uremia, or back of a case of gangrene, a system weakened by diabetes ?

Who can doubt or question that benefit comes from systematic examinations of urine in our cases ? How much time would be gained, and, possibly, life saved, if we always examined the urine of our pneumonia patients, our typhoid patients, and especially the urine of the pregnant woman, whose life depends on the care and attention of her physician ?

Society Proceedings.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

Sixth Annual Meeting, held at Detroit, Mich., June 1, 2, and 3, 1893.

(*Abstract.*)

[*From the Medical News.*]

FIRST DAY—JUNE 1ST.

Dr. J. Henry Carstens, of Detroit, delivered an address of welcome, which was responded to by Dr. Geo. H. Rohé, of Baltimore.

Dr. George F. Hulbert, of St. Louis, read a paper, entitled Intrauterine Asphyxia, with Report of Three Cases. The first case was delivered by natural means, the other two with instrumental assistance. In all, the fetal heart sounds had been heard distinctly half an hour before delivery, but somewhat weakened in force. In all, at the time of delivery, the appearance presented by the children was one of extreme pallor, with a deepened tinge of the lips and absolute muscular relaxation. The heart beat at the rate of from forty to fifty per minute. The usual methods of artificial respiration were resorted to, to the extent of introducing a catheter into the trachea. That air did penetrate was evidenced by the slight crepitus heard during compression of the chest in the expiratory part of the respiratory act. Artificial respiration was maintained until the heart ceased beating—until it ceased to respond to the stimulus presented by the aëration of the blood by the artificial respiration. In none of the cases were there any external evidences of pathological conditions. The umbilical cords did not exceed the normal limits, but in all three cases blood-clots were found occupying the placental surface in more than half of its area. These clots were well formed, intimately attached to the placental tissue, and smooth upon the uterine side. There was nothing to indicate that the clot had been torn from the uterine surface, but rather that placental separation had taken place and the clot had formed and become adherent to the placental tissue. So far as the mothers were concerned, they were in average good health; the first was a primipara, the last two multiparæ. The labors had not been more than twelve hours in duration, and presented no abnormality other than that in the first case the

delivery was of the "piston-rod" variety, the head being forced down to the perineum at each pain, and promptly receding to the brim upon the disappearance of the pain. In none of the cases were the pains sustained and vigorous, but rather short and inefficient. In none was chloroform used, and in only one, the first, a rectal injection of twenty grains of chloral was given during the first stage. The element of compression upon the head was not at all pronounced, and would not have attracted attention. In the last two cases there was no pulsation appreciable in the cord; in the first case, no record of this fact had been made. The children were separated from the mothers immediately, and in the first a small amount of blood was permitted to escape from the severed end of the cord. Unfortunately, in none of the cases was a post-mortem examination obtained. There was only a moderate amount of amniotic fluid following the birth of each child. In the first two cases, dilatation was well advanced before the membranes ruptured; in the last case, rupture occurred at the beginning of dilatation.

Dr. J. Henry Carstens, of Detroit, Mich., related a case similar to those reported, and attributed the condition of the child to either large doses of ergot, given by an irresponsible practitioner, or to some disturbance of the centers of respiration.

Dr. John M. Duff, of Pittsburg, expressed the view that in the case of stillborn children,—when, apparently, before birth they were well, the heart beating properly, etc.,—death is due to cerebral hemorrhage. He has seen two post-mortem examinations within the past two years corroborative of this view.

Dr. William H. Wenning, of Cincinnati, read a paper on Placenta Previa. He pointed out that the pathology of placenta previa is far from being definitely settled, owing to the discrepancy between clinical phenomena and anatomic demonstrations. The term was originally employed to express the fact of the afterbirth lying before, which might apply to a prolapse of the placenta as well as a primarily low insertion. At the present day it implies a fixation of the placenta to the lower pole of the uterine cavity. Omitting minor points of discussion, the placenta may be said to be previa when it is inserted wholly or in part to that portion of the lower uterine segment which is subject to distention in pregnancy or labor.

Dr. John Milton Duff read a paper, entitled The Care of Pregnant Women. He said that every pregnant woman needs

moral and hygienic, if not medical, treatment, and from the time that pregnancy is recognized until convalescence from the lying-in.

Before attending a woman in labor, the physician should be familiar with her personal and family history (medically speaking), so that he may note personal or family idiosyncrasies; discover and treat diseased conditions, if present; determine the presentation, if not the position, of the child *in utero;* ascertain the dimensions of the pelvis, the presence of deformities, and the general physical condition; and judge of her ability to withstand the throes of labor—in short, so that he may be able to anticipate any accident or abnormal condition that might arise during labor, and, if possible, to ward it off or treat it promptly, scientifically, and successfully.

Attention was called to strychnine as an adjuvant in the treatment of disorders of pregnancy, and as an aid in parturition.

Good results were reported from the systematic administration of doses of from one-thirtieth to one-sixtieth of a grain, three times a day, for from two to six weeks prior to the expected onset of labor.

Dr. Edmund M. Pond, of Rutland, Vt., read a paper, entitled Dilatation of the Cervix for Dysmenorrhea, in which he advocated the use of a light Palmer dilator, and packing the uterus when the cervix is elastic; to be repeated, if necessary. In case of failure, a heavy dilator is to be tried. If the cervix is long, conical, and cartilaginous, and dilation and packing have failed, free division from the internal to the external os, dilatation with a light instrument, and introduction of a stem pessary, to be worn from ten to fourteen days, are to be recommended.

Dr. George S. Peck, of Youngstown, O., read a paper on Extra-uterine Pregnancy, and reported several interesting cases.

Dr. Eugene Boise, of Grand Rapids, Mich., read a paper on The Nature of Shock. He concluded that shock is not a paresis, either partial or general, of the vasomotor nerves, but a hyper-irritation of the entire sympathetic system. The skin is pale and livid, from contraction of the arterioles, in consequence of stimulation of their vasomotor nerves. The heart's action is rapid from stimulation of its sympathetic nerve-supply. There is scanty secretion of urine from contraction of the renal arteries, as a result of stimulation of their nerve supply. The skin, though pale and livid, is bathed in perspiration

from stimulation of the secretory nerves of the glands. The pupils are dilated from stimulation of their sympathetic nerve-supply. The pulse at the wrist, while rapid and small as would be expected in vasomotor stimulation, is soft and compressible, in consequence of the scanty relaxation or dilatation of the heart. The condition of the heart may not have been actually demonstrated, but may justly be inferred by analogy—reasoning from the action of the uterus under similar conditions. Each contraction of the uterus is normally followed by a period of perfect relaxation. Over-irritation or stimulation of the uterine ganglia or sympathetic nerve-supply causes rapid contraction, with every imperfect relaxation. It is fair to infer the same condition in the heart under similar conditions. Thus the supply of blood to the arteries is scanty and the blood pressure is low. That the condition of the heart is one of stimulation rather than of paresis, may be considered demonstrated by the fact that, in cases of sudden death from severe shock, the heart has been found contracted and empty. Admitting the correctness of this pathology, it follows that the treatment should be conducted on the line of sedation to the sympathetic system, as by amyl nitrite, nitro-glycerin, morphine, and the application of moist heat, *first*, to the surface; *second*, through the long tube in the colon; and *third*, by transfusion of a saline solution at a comparatively high temperature.

SECOND DAY—JUNE 2D.

Dr. Walter P. Marnton, of Detroit, read a paper, entitled A Contribution to the Pathology of Surgical Diseases of the Gall-bladder.

Dr. Jas. F. W. Ross, of Toronto, followed with a paper on A Few Practical Notes on the Establishment of Anastomosis Between the Gall-bladder and Intestine for Obstruction of the Common Duct, with the Relation of a Case of Obstruction of the Common Duct by a Small Growth.

The President, Dr. L. S. McMurtry, delivered the Annual Address. His subject was The Present Position of Pelvic Surgery. After a brief sketch of the history of ovariotomy, it was pointed out that from its beginning the department of pelvic surgery has been promoted and advanced by the labors of a few men. When the new surgery of the peritoneum was introduced, it was seized upon in a reckless way by the multitude, and for a

time its very existence was threatened. The splendid results of the few who were trained for the work by a rigid apprenticeship were made the basis of operations by many wholly unprepared to carry out an exacting and difficult practice. Operations were undertaken upon inadequate and erroneous conceptions of pathologic conditions, and even, indeed, without any definite pathologic data whatever, until in many influential quarters the greatest discredit was thrown upon the work of able and conscientious men, who were masters of pelvic pathology and pelvic surgery.

Dr. Rosenwasser, of Cleveland, Ohio, read a paper, entitled What are the Indications for Abdominal Section in Intra-pelvic Hemorrhage? He offered the following conclusions:

Intra-pelvic hemorrhage may be free into the peritoneal cavity, or primarily or secondarily circumscribed by true or false membranes. Though nearly always due to ruptured ectopic pregnancy, the same surgical principles underlying the treatment of other similar hemorrhages are applicable in intra-pelvic hemorrhage. Such treatment must, therefore, vary according to the conditions dependent on the hemorrhage, and, secondarily, on the original cause of the hemorrhage ; hence, to prevent free intra-pelvic hemorrhage, abdominal section is indicated in all cases of presumably recognized unruptured tubal pregnancy, either as prophylactic, or for the purpose of removing pathologic conditions not otherwise curable. In all cases of free intra-pelvic hemorrhage, from whatever cause, early or immediate section isthe only safe means of averting a fatal termination. In cases of circumscribed, intra-pelvic hemorrhage, section is indicated for the removal of increasing blood-clot and *débris*, whether due to recurrent bleeding or continued growth of a fetus ; and whenever the symptoms indicate decomposition of the blood-clot. Lastly, section is also indicated whenever the pressure of the circumscribed blood-mass causes obstruction of the bowel.

Dr. H. W. Longyear, of Detroit, read a paper, entitled A Plea for Better Surgery in the Closure of the Abdominal Incision. From investigation and observation he has concluded that suppuration of the wound made in abdominal incision can occur with either method, but is much less liable to take place with the buried suture, if properly placed and sealed, than with the *en masse* suture, as, in the latter, pyogenic germs may enter the wound *via* the sutures or their sinuses. In fact, suppuration is often the

result of the dragging in of germs attending the removal of the *en masse* suture.

Very thin or very fat walls lead to the development of hernia after abdominal incision, by preventing the accurate coaptation of the aponeuroses, which could only take place with the *en masse* suture, and would be prevented by the use of the buried method. The extra-peritoneal treatment of the stump in either case is bad, and will some day be considered unsurgical, but if the fascia is brought closely around the stump and held there by the buried suture until it forms a solid firm ring around it, the viscera will be less liable to burst through it than if sutured but for nine or ten days, and afterward wedged apart, before firm cicatrization has had time to take place. When the aponeuroses form solid union with the buried suture, no bandage will be required, as they are as strong as before incision. Imperfect closure is very much less liable to occur when the exact method of the buried suture is used, than with the "guess" method of the *en masse* stitch. In one it is known that the fascia is approximated, while in the other there is less certainty. Long incisions are always to be deprecated, but if healed by first intention after the use of the buried suture, hernia cannot occur, as by this method the chance of the interposition of other tissues between the apposed edges of the fascia is obviated. The straining of vomiting, resulting from the nausea of prolonged anesthesia, need not be feared when the buried suture is used, as the fascia cannot be separated by any such force when united with a strong suture. Too early rising is only to be feared after removal of suture; and as the buried suture remains indefinitely to exert its restraining force, this cause has to do only with the *en masse* suture.

Drainage will be required with both methods of suture, but with the increasing tendency to use small tubes, the danger is becoming much less. Large gauze drains should be avoided on this account. The buried suture, however, properly protected from the drainage-opening by one *en masse* stitch, will usually insure solid union of the fascia close to the tube, and thus give the best result. Failure to take up the aponeurosis in the suture can only occur with the *en masse* stitch. Too early removal of sutures can only occur with the *en masse* stitch, and is obviated by using the buried suture. The use of soft catgut is permissible only when the safe tendon suture, or even silkworm-gut or silver wire, cannot be obtained.

If the patient becomes too fat, the cicatrix of the aponeurosis will not separate if reinforced with a strong tendon suture. Non-union of muscles is not likely to occur if their sheaths are properly approximated and held in place by the buried suture. If cut transversely, a fine tendon will insure their union. The use of the interrupted suture is easily obviated by simply using the buried animal suture in the closure of all abdominal incisions.

Dr. C. A. L. Reed, of Cincinnati, contributed a paper, entitled The Management of the Abdominal Incision.

He said that the occurrence of suppuration and of ventral hernia in the line of the abdominal incision pointed to some defect of technique or management. In preparation it was recommended that, first, an application of oil be made, followed by ether, with some strong alkali ; then cleansing with clear water, followed by the persistent application, for over half an hour preceding the operation, of a strong solution of mercuric chloride. The incision should be made carefully in the median line through the linea alba, and the peritoneum should immediately be laid open smoothly with the knife. In closure it was recommended that an interrupted suture of silkworm-gut be passed from within outward on both sides entirely through the tissues, but so passed that it enters the wall of the peritoneum near the margin, dips deeply into the median tissue, and is brought out near the margin of the integument. The sutures should not be tied too tightly, and with the knot to one side of the incision. The wound should be dressed with aristol, boric acid, and a bandage carefully applied. When the sutures are removed, a firmly-fitting adhesive strip should be applied that will not cause compression of the incision, with a consequent tendency to separate the internal margin.

THIRD DAY—JUNE 3D.

Dr. John C. Sexton, of Rushville, Ind., contributed a paper upon The Causation and Prevention of Central Laceration of the Perineum.

He pointed out the rarity of the accident, as a result of the many almost perfect methods of prevention. Among the deformities and irregularities of formation that tend to cause the accident, are defective or abnormal development of the perineum or pubes and anomalies of the expellant forces and positions of the vertex. The use of chloroform to a degree suspending the action of the uterine muscles was advised against as dangerous. Resort to

episiotomy was especially cautioned against. It was insisted that timely and skilful use of the forceps could prevent central lacer ation of the perineum.

Dr. X. O. Werder, of Pittsburg, contributed a paper, entitled Pregnancy Following a Partial Supra-pubic Hysterectomy, Complicated by Hemorrhage through the Abdominal Cicatrix.

The interesting points of the case reported were:

The discharge of the menstrual flow through a small fistulous opening remaining after a partial supra-vaginal hysterectomy; and the occurrence of pregnancy eight or nine weeks after the operation in a woman previously sterile.

The pregnancy terminated at about term in the delivery of a healthy, though poorly developed child, in spite of a firm and unyielding fixation of the uterus to the abdominal wall, and in spite of frequent and profuse hemorrhage from the placental site through the sinus opening in the lower angle of the abdominal cicatrix.

Dr. George H. Rohé, of Catonsville, Md., read a paper, entitled Further Observations on the Relation of Pelvic Disease and Psychical Disturbances in Women. He gave the further history of eighteen cases reported last year, in which the uterine appendages of insane women were removed for pelvic disease. Two additional cases have been operated upon. In both, the ovaries were cystic. Of these twenty cases, there was physical recovery from the operation, with improvement of the general health in eighteen; death in two; absolute mental recovery and discharge from the hospital in four; complete physical and partial mental recovery in three; decided mental improvement, but not sufficient to justify discharge from the hospital, in seven. In three, the mental condition remained unchanged, but the physical condition was decidedly better. In one case, the patient was removed from the hospital by friends a few weeks after operation, and placed in another institution, where she is reported to be worse mentally. A case of melancholia with suicidal tendencies was also reported, in which a badly lacerated cervix was repaired, with complete and rapid mental recovery and discharge.

The following officers were elected:

President—Dr. George H. Rohé, of Catonsville, Md.; *First Vice-President*—Dr. Walter P. Manton, of Detroit, Mich.; *Second Vice-President*—Dr. George F. Hulbert, of St. Louis, Mo.; *Secretary*—Dr. William Warren Potter, of Buffalo, N. Y.; *Treasurer*—Dr. X. O. Werder, of Pittsburg, Pa.

It was decided to hold the next meeting at Toronto, Canada, at a date to be fixed on by the Executive Council.

Clinical Report.

A CYST OF THE CEREBELLUM.[1]

By LINUS J. McADAM, M. D., Buffalo, N. Y.

In reporting this case I do not wish to convey the idea that it is so very different from other cases of the same nature, but the definiteness of its symptoms, the rapidity of its course, its fatal termination, and the fact that we were able to get an autopsy and secure the specimen, warrant its publication.

Jacob Mc., aged 36 ; millwright by trade ; of good family history. On October 23, 1892, he called at my office, complaining of dizziness, nausea, and a pain in the back of his head, and that morning while yet in bed he had a strange feeling come over him, as though everything was going round and seemed to turn him partly round in bed. For a number of days he had noticed, while working in a stooping position, that he would suddenly lose his balance and butt his head against whatever might be in the way. Upon examination I found him with a furred tongue, sallow complexion, yellow conjunctivæ, loss of appetite, temperature sub-normal, ninety-eight degrees ; high-colored urine, and constipation, together with the other symptoms which I have just mentioned.

From this I drew the conclusion that there was a torpidity of the secretions, and prescribed accordingly, blue mass, followed in the morning with Rochelle salts and a bitter tonic, asking him to report the results, which he did in two days, with very little change in his condition. Without changing my diagnosis I gave him more hepatic stimulants and waited developments. After two days he returned complaining of a good deal of thirst, and upon inquiry he was passing more than the normal amount of urine ; requesting him to save the urine passed in twenty-four hours, I found he was passing from sixty to seventy ounces daily, which upon chemical analysis contained quite a quantity of sugar. Thinking, perhaps, this was the cause of the symptoms, I put him on mineral waters with Rhus aromatica, and in a few days the sugar disappeared. Inquiring more closely into the history, I

1. Read before the Buffalo Academy of Medicine, March 21, 1892.

found that on one occasion while down the river fishing, he had experienced a sort of sunstroke, and upon inquiry I found that he had ringing in the ears and tingling in his fingers, and when his eyes were closed there would be sparks of light passing before them. The former symptoms still persisting, with these new facts in my possession I diagnosticated a sub-acute basilar meningitis. My reasons for calling it basilar were : (1st) That the symptoms pointed to the base ; (2d) that there were no mental symptoms, the speech, hearing, and sight being unaffected. Changing my tactics I kept up the cathartics and put him upon a mixture of bromide and ergot, which seemed to relieve him, until October 31st, when I noticed that if his attention was attracted while he was walking he would swagger to the right. Having inquired as to any specific history I thought that perhaps he did not wish to admit. I began to think that there might be a gumma and placed him upon the iodides, which after a persistent use for two or three weeks failed to give any results. The symptoms becoming more grave, I consulted Dr. Crego on December 5, 1892, who, after hearing the history, and upon examination, pronounced it a lesion of the base, and also stated that it might be due to one of several conditions of which he mentioned, an occlusion of the post-cerebral artery, gumma, tumor or softening, and recommended larger doses of the iodide with galvanism. On December 22, 1892, I again consulted him. The tendency of the patient to go to the right and the marked atoxic gait were unmistakable, and the lesion was located in the cerebellum ; still continuing the iodide, we gave mercurial inunctions from time to time without any results. On January 17th, Dr. Wm. C. Krauss was called in consultation, and made a more positive diagnosis of a neoplasm of the cerebellum. Anxious to follow the case through, although it drifted into other hands who gave them more hope than I could, I made occasional friendly calls, until the night of March 15th, when I was called only to find what we had anticipated. To my surprise he died without a struggle. With some difficulty I obtained the autopsy, and the specimen which demonstrated that the diagnosis was correct, namely : A cyst of the right lobe of the cerebellum.

88 Austin Street.

Abstract.

NEURITIS AND MYELITIS AND THE FORMS OF PARALYSIS AND PSEUDO-PARALYSIS FOLLOWING LABOR.[1]

By CHARLES K. MILLS, M. D., Philadelphia.

Neural and spinal affections of puerperal origin, although not entirely neglected, have received but little attention in the text-books and journals. Imbert-Gourbeyre[2] refers briefly to the occurrence of paralyses from trauma during labor, in a monograph on Puerperal Paralyses, giving several cases. One of these, from Rademacher, was an incomplete and painful paraplegia coming on at the end of a long and difficult labor, and cured in eight days chiefly by friction. Another patient, thirty-six years old, during her third labor was paralyzed in both extremities, and recovered in a few months. Salvat is recited as reporting the case of a woman treated by him for vesico-vaginal fistula, with paraplegia produced by the long stay of the head of the fetus in the inferior strait. Another patient, thirty-two years old, during her fourth labor, which was prolonged and the delivery by forceps, suffered great pain in the loins, accompanied by feebleness and swelling of the legs. The feebleness increased to paraplegia, and she had lancinating pains, paresthesia and cramps in the limbs. I have cited these cases in a paper on Lesions of the Sacral and Lumbar Plexuses,[3] in which I have also reported two cases of sacral neuritis, kindly furnished me by Dr. Howard A. Kelly, of the Johns Hopkins Hospital. The first patient had passed through a difficult instrumental confinement some twelve years before coming under observation. She visited many prominent gynecologists, and underwent a number of operations, the last being the removal of two large tubes and ovaries. She was relieved of menstrual exacerbations, but still suffered great pain in the pelvis, for which she was receiving galvanism, massage, and antilithic remedies. A careful examination showed that the uterus and its surroundings were perfectly free from disease. On making a careful rectal examination, however, outlining the sacro-sciatic ligament and pyriformis muscles, and carefully palpating the roots of the great sciatic nerve, upon

1. Read before the College of Physicians, Philadelphia, March 1, 1893.
2. Imbert-Gourbeyre: Mem. de l'Acad. Imp. de Med., tome xxv., 1861.
3. Mills, *Med. News*, June 15, 1889.

touching one cord she gave a sudden scream, at the same time doubling up her leg and jerking her body in the bed. Here, directly over the roots of the left sciatic nerve,—the left sacral plexus,—was the only diseased area which could be detected in the pelvis. All subsequent treatment was directed to this condition. The second patient had constant pelvic pain, which she described as soreness, located at the "back of the womb." She had been for several years, since the birth of her last child, under the care of gynecologists, who had not been able to give her any relief whatever. It was found by exploration that the only point of tenderness in the pelvis was at the roots of the sciatic nerve, and here she at once located all her pain when the doctor introduced his finger into the rectum and made pressure on the nerve trunks. The case was one of neuritis. As Dr. Kelly remarks in the communication sending notes of these cases, they teach the value of exploration of the pelvis outside of the uterus and its annexes.

Ramsbotham[1] speaks of paralysis of both legs of varying degree occasionally happening after labor; more frequently when the process has been tedious and painful, but sometimes when it has been of ordinary duration, or even of unusual rapidity. He is evidently referring to the same classes of cases of which we are treating in the present paper. "It is not attended with cerebral affection," he says, "but is dependent on pressure which the muscles and nerves have sustained during the passage of the child's head through the pelvis. There is pain and numbness, both within the cavity and around the hip, and an inability to move the limb with freedom. It generally disappears by degrees within a few days; at other times it continues beyond the period the patient commonly remains in bed, and compels her when she rises from it to use a stick or a crutch. Fomentations in the first instance, and afterward stimulating embrocations, a douche or shower bath, tonic medicines and gentle movement of the limb, will offer us the best chances of success. Hemiplegia, indeed, may appear after delivery as well as at other times; but there will then be particular symptoms, independent of those connected with the local affection, which are too well known to require mention from us here."

Cazeaux and Tarnier,[2] in the American edition of their treatise, translated by Hess, under Lesions of Innervation, direct attention

1. Ramsbotham: The Principles and Practice of Obstetric Medicine and Surgery. Am. ed., 1865.

2. Cazeau and Tarnier: Theory and Practice of Obstetrics. Eighth Am. ed., edited and revised by R. J. Hess, M. D. 1887.

to the various forms of paraplegia occurring during pregnancy or labor, most of which they attribute to reflex causes. Lloyd[1] considers some aspects of the subject in a contribution to Hirst's American System of Obstetrics.

Winckel[2] introduces a brief chapter on the Neuralgias and Paralyses of the Lower Limbs, with a paragraph which is comprehensive in its presentation of the etiology of these affections :

The puerperal neuroses of the lower limbs are located chiefly in the nerve trunks, more rarely in the nerve centers, and generally owe their development to parturition. Injurious pressure is effected by a large, hard, child's head, unfavorable in presentation in a small pelvis. Vigorous compression may result in complete interruption of conduction at the compressed spot. This occurs in instrumental aid during labor, inasmuch as the rim of the blades of the forceps may produce severe contusion of the sacral plexus on forced closure as well as during extraction. The thick nerves are also compressed not infrequently by a pelvic exudation, or small extravasations from the neighboring parts extending to the sheaths of the nerves, or hyperemia, or edema of the neurilemma appear spontaneously. We have already mentioned that parametritis may give rise to such neuralgias. The location of the affection is in the external and middle cutaneous, obturator, or sciatic nerves. The two latter nerves are especially apt to suffer during labor. Even the slight pelvic exudations, for example, one resulting from phlebitis, may make a nerve trunk incapable of conduction without compressing the entire trunk. (Leyden.) Injuries of the vagina, with subsequent severe cicatricial contraction, may also exercise traction and pressure on individual nerve trunks of the pelvis minor, and hyperesthesia and motor disturbances may thus be produced.

References to this subject are also to be found in some of the neurological text-books, but it is not in these treated of systematically.

To Dr. Anna M. Fullerton, of the Woman's Hospital of Philadelphia, who, in her large obstetrical experience, has seen a number of instances of paralysis and pseudo-paralysis during the puerperium, I am indebted for the notes of some cases. In a letter accompanying these notes, she says that partial paralysis is, in general, short-lived, being limited generally to two or three days. She has seen paralyses of the rectum and sphincter from long-continued pressure of the head upon the floor of the pelvis, which sometimes persisted for a week or ten days, and which was only overcome by faradism and time ; also vesical paralysis, which

1. Lloyd : Hirst's System of Obstetrics, by American authors. Vol. II.

2. Winckel : A Text-Book of Obstetrics. Translated by J. Clifton Edgar, A. M., M. D., 1890.

has sometimes lasted up to the sixth, seventh, or twelfth day after delivery. According to Dr. Fullerton, cases of contracted pelvis, which, because of a narrow inlet, have resisted the engagement or descent of the head, and cases in which for any cause there has been impaction of the fetal head, have been those most commonly resulting in paralysis.

. . . . . .

The most valuable recent paper on puerperal paralysis of peripheral origin is that of Hünermann,[1] assistant in the clinic of Gusserow, at Berlin, on Paralysis in the Region of the Sciatic Nerve Following Labor. On examination of this paper, which I have obtained quite recently, I find that Hünermann has reasoned with reference to the production of the most common type of these palsies in much the same manner as I had already presented the subject in the arena at the Philadelphia Hospital, and to my ward classes. He carefully traverses the literature of the subject, and his paper can be consulted with advantage for French and German references. Among the writers to whom he refers are: von Renz, Koeppen, von Leyden, Kast, Möbius, von Basedow, Gerber, Breisky, Litzmann, Kehrer, Dorion, Bianchi, Lefebre, Brivois, Guinon and Parmentier, and Handford.

. . . . . .

The affections to which attention has been directed in the paper is discussed under five heads:

(1) Traumatic paralysis of the peroneal type, usually associated with severe neuritis.

(2) Sacral and sacro-distal neuritis, sometimes accompanied by a pseudo-paralysis, and often maintained or aggravated by disease and displacements of the pelvic organs and tissues.

(3) Puerperal neuritis, local or multiple, and due to septic or other infection.

(4) The neuritis, paralysis, and pseudo-paralyses of phlebitis, and phlegmasia alba dolens, which are often septic, but have special features.

(5) Puerperal myelitis occurring under the same conditions as the forms of septic and infectious neuritis.

Brief reference is made to forms of hysterical and reflex paralysis, which must be diagnosticated from the affection under consideration. Cases illustrative of each of the classes mentioned are presented, the first class, however, receiving the fullest discussion. —*University Medical Magazine.*

1. Hünermann: *Archiv. für Gynäkologie*, Berlin, 1892, Vol. XLII., Part III.

BUFFALO MEDICAL AND SURGICAL JOURNAL

A MONTHLY REVIEW OF MEDICINE AND SURGERY.

EDITORS:

THOMAS LOTHROP, M. D. - - WM. WARREN POTTER, M. D.

All communications, whether of a literary or business character, should be addressed to the managing editor: 284 FRANKLIN STREET, BUFFALO, N. Y.

VOL. XXXII. JULY, 1893. No. 12.

THE RELATION OF NOISE TO GOOD HEALTH.

SOME of the lay newspapers are discussing the question of noise as related to the peace and comfort of the people resident in large cities. Such a discussion is timely, and deserves to be carried on until reform has been obtained in this matter of great abuse. There is not the slightest doubt but that the noise, bustle, and confusion, incident to the conduct of traffic in large cities, has much to do with nerve perturbation and disease, either as an exhaustive factor or as an aggravating contributory element. We refer now not to that essential noise which belongs to the proper conduct of business affairs, but to a superfluous group of noises that could be prevented by a little care and the exercise of prudence and good judgment.

The shouting of wares through the streets should be prohibited as a noise that is especially disagreeable and harmful in its character. Lawn mowers should be used at a seasonable hour, so that neighbors who are ill, or who must sleep during the early morning hours, need not be disturbed thereby. The ringing of church bells should be entirely prohibited by municipal law as a noise that is worse than disagreeable, being a positive nuisance, besides being totally unnecessary. Parents should be careful in the selection of toys for their children, that they do not become also a noise-nuisance instead of a delight to the community and neighborhood. Trumpets, drums, whistles, and other noisy trinkets should be carefully eliminated from the repertory of children amusements. Steam-whistles also are quite unnecessary, and their screeching noise is of the worst nature. There is a long list of useless noises that might be eradicated without laying a stumbling block in the path of legitimate traffic, progress, or money-getting. We have only hinted at a few of them, but, should occasion offer,

we may refer to the subject at another time more in detail. Our object has been to throw out a hint that would open up a channel of thought to our readers, who are naturally the leaders of reform on all subjects that pertain to health and prosperity and in municipal sanitation.

The 130 or more miles of asphalt pavement that Buffalo possesses, go a long way towards reducing the rattling sounds of vehicles in the conduct of traffic, as well as in the pleasure-riding of our citizens. Let us all, on every proper occasion, preach the doctrine of less noise in our city and stronger nerves for our citizens.

TOPICS OF THE MONTH.

NATIONAL QUARANTINE.—REPORT OF A COMMITTEE OF THE NEW YORK ACADEMY OF MEDICINE.—Dr. D. B. St. John Roosa, who presided at the meeting of the Academy of Medicine, held June 20, 1893, was agreeably surprised at the large attendance, despite the great heat. It was a special meeting called "at the request of ten members of the National Quarantine Committee, to receive a report from the same committee." This is the report, which was read by Dr. Derby :

While we believe that the most certain protection of this or any other civilized country against the ravages of any infectious disease lies in the practice of carefully planned internal sanitation, we yet are convinced that, for the present at least, an intelligently rigorous system of maritime quarantine is necessary in this country. So far as the protection of the country against Asiatic cholera during the coming Summer is concerned, the legislative bodies in whose hands the responsibility lays have decided, for better or for worse, upon their plan ; and upon the authorities on whom the delegated power, such as it is, was vested, now rests the task of execution.

Our investigation of this subject has convinced us that the interest of the public health of the country demands the establishment, at an early day, of a National Bureau of Health, under whose supervision and control, together with other matters concerning the public health, them aritime quarantine system should be placed. The duties of such a board, in addition to those involved in a maritime quarantine, should be to sustain and encourage research in matters concerning the causes and prevention of disease, to obtain and disseminate information on matters affecting public health, to formulate and enforce such rules and regulations as may be necessary to prevent the introduction of contagious or infectious diseases and the spread of the same within the territory of the United States, to advise the several departments of the government, the executives of the several States, and the commis-

sioners of the District of Columbia, on all questions submitted to them relating to the public health, and to tender such advice whenever in the opinion of the board such counsel may be conducive to the public weal.

After deliberation, the National Quarantine Commission of the Academy of Medicine has agreed that in order to secure the objects for which it was appointed, it seems necessary that a National Bureau of Health should be organized—quarantine being a function of the bureau—and it desires to be authorized by the academy to take such steps as it may consider necessary to carry out this project. Respectfully submitted,

I. G. THOMAS, *Chairman.*
RICHARD H. DERBY, *Secretary.*

Dr. T. Gaillard Thomas spoke in support of the suggestions contained in the report.

Dr. W. W. McGregor, of Laredo, Texas, said that in his opinion the matter of quarantine should be under a thoroughly systematised National Quarantine Board.

Dr. A. D. Chapin moved, and Dr. J. D. Bryant seconded a motion calling for the adoption of the report and the carrying out of the suggestions therein contained.

The Chairman said that they all had confidence in the committee, and that it could be intrusted with any work that the academy in its wisdom saw fit to empower it to carry out.

Dr. Jacobi wanted to know whether they would expect the committee to report before anything very important was really done.

Dr. Roosa said :

It will not be necessary for the committee to report until the members themselves deem it proper to do so. It would be belittling them to say that they would do nothing until we meet again in October. As a matter of courtesy to this body, I have no doubt that they will give information, from time to time, of what they are doing, and if the Academy sees fit to correct or reverse their action, it has the right and the power to do so.

The resolution was immediately agreed to.—*New York Tribune.*

The Health Department having failed to suppress the church-bell nuisance, it would seem to be in order to appeal to the Department of Police to take action in the premises. The church bells at 5.00 and 6.00 A. M. are a far greater nuisance, and more disturbing to the sick, than the hurdy-gurdies after 8.00 P. M.

The New York Physicians' Mutual Aid Association has established its headquarters permanently in the capacious New York Academy of Medicine building, 17, 19, and 21 W. Forty-third street, New York City. We have on several occasions referred to the good work this association is doing, and we desire to further emphasize the subject at this time. This association furnishes a certificate payable at death for $1,000, the cost of which is but a trifle. There is no other way that insurance can be afforded at so little cost and with such absolute safety. The membership is steadily increasing, but it should be advanced to 2,000 in number, in which case the assessments would be reduced one-half. Every physician residing in the State of New York should interest himself to secure a member. The address of the secretary is Dr. J. E. H. Nichols, 4 E. Forty-third street, New York, N. Y.

The first annual report of the Sheppard Asylum and Hospital for Mental Diseases, located near Baltimore, Md., is a model of its kind. This asylum was founded through the generosity of the late Mr. Moses Sheppard, of Baltimore, and is intended to afford the most advanced accommodation and treatment for those who are mentally afflicted. The institution is under the medical superintendence of Dr. Edward N. Brush, who is also physician-in-chief, and who will be remembered by his many friends in Buffalo, as a former practitioner of medicine in this city, and at one time editor of the Journal.

The report is beautifully printed, and handsomely illustrated by photographic reproductions of the buildings, grounds, and interior views. The Journal begs to tender to Dr. Brush its congratulations upon his success in his present field of labor, and to congratulate the trustees of the Sheppard Asylum upon securing his valuable services as chief medical officer of that institution.

We beg to call the attention of our readers to an interesting paper by Prof. Isaac N. Love, of St. Louis, which occupies the first place in this number of the Journal. The subject upon which he discourses, namely, Children's Rights, is one of great importance, and we are not aware that it has ever been more ably handled than by the distinguished author who makes his bow to our readers as a contributor on this occasion. The address is in the nature of a

valedictory to the graduating class, and his closing words, addressed more especially to the graduates themselves, also deserves a careful reading. His remarks relating to the code are especially significant, in view of the fact that Dr. Love has just been elected Vice-President of the American Medical Association, and in some sense has foreshadowed the change of sentiment which is rapidly taking place in that body on the much controverted code of ethics.

Dr. C. N. Hoagland, of Brooklyn, a physician already widely known for his wise beneficence in the promotion of medical science, has made a generous offer to the medical profession of the city of his residence. As our readers are well aware, the Hoagland Laboratory is a monument to his interest both in medicine and in the city of his home. But Dr. Hoagland does not stop at one benefaction, for now he proposes to give $50,000 for the erection of a building which shall serve as a headquarters for all the medical societies in Brooklyn, provided that an equal sum for the same purpose is raised by the medical profession of that city. No doubt this generous offer will be accepted by the several societies in interest. We understand that already committees have been appointed to consider this magnanimous offer. It is a pity that some public-spirited citizen of Buffalo, of whom we are proud to say there are many, could not be made to see the propriety of a like contribution for the promotion of medical science, and to the everlasting credit of the donor and the city. We wish the example of Dr. Hoagland might stimulate some such similar action in Buffalo.

The Smithsonian Institution, at Washington, has issued a circular concerning the Hodgkins fund prizes. These are four in number, and were established by Thomas George Hodgkins, Esq., of Setaukett, N. Y., to increase and diffuse more interest and knowledge in regard to the nature and properties of atmospheric air in connection with the welfare of mankind. The Smithsonian Institution announces the following prizes to be awarded on or after July 1, 1894, should satisfactory papers be offered in competition:

1. A prize of $10,000 for a treatise embodying some new and important discovery in regard to the nature or properties of atmospheric air. These properties may be considered in their bearing upon any or all of the sciences—*e. g.*, not only in regard

to meteorology, but in connection with hygiene, or with any department whatever of biological or physical knowledge.

2. A prize of $2,000 for the most satisfactory essay upon—

(*a*) The known properties of atmospheric air considered in their relationships to research in every department of natural science, and the importance of a study of the atmosphere considered in view of these relationships.

(*b*) The proper direction of future research in connection with the imperfections of our knowledge of atmospheric air, and of the connection of that knowledge with our sciences.

The essay, as a whole, should tend to indicate the path best calculated to lead to worthy results in connection with the future administration of the Hodgkins foundation.

3. A prize of $1,000 for the best popular treatise upon the atmospheric air, its properties and relationships (including those to hygiene, physical and mental). This essay need not exceed 20,000 words in length; it should be written in simple language, and be suitable for publication for popular instruction.

4. A medal will be established, under the name of the Hodgkins Medal of the Smithsonian Institution, which will be awarded annually or biennially, for important contributions to our knowledge of the nature and properties of atmospheric air, or for practical applications of our existing knowledge of them to the welfare of mankind. This medal will be gold, and will be accompanied by a duplicate impression in silver or bronze.

All communications in regard to the Hodgkins fund prizes should be addressed to S. P. Langley, Esq., Secretary of the Smithsonian Institution, Washington, D. C.

The fourth bulletin of the Harvard Medical School Association was issued in May, 1893. Like the bulletins that have preceded it, it is a model of its kind. It contains a list of the officers of the Association, a report of the meeting of the Council, and a number of valuable papers. It is intended, as stated in the prefatory note, to give to the graduates of the school a brief account of certain new methods of teaching which have arisen in the various departments of Harvard Medical School. It is beautifully printed on heavy paper, and contains two handsome photographic illustrations. Applications for this valuable bulletin should be made to the Secretary, Dr. Robert Williamson Lovett, 379 Boylston street, Boston, Mass.

Personal.

Dr. G. E. Mackey, of Buffalo, has been appointed Assistant Medical Director of the Equitable Life Assurance Association of New York. Dr. Mackey has been for many years the local examiner in this city, but now he will take up his residence in New York in order to address himself to the duties pertaining to his new field of labor. His many friends in this city will regret his departure, but the advantages seem to be great enough to warrant the change.

Dr. David Webster announces that he has removed from 266 Madison avenue to 327 Madison avenue, between Forty-second and Forty-third streets, New York. His hours are from 9 A. M. until 1 P. M.

It was a source of general regret in this city, that during the session of the American Surgical Association, recently held, the severe illness of Dr. Tremaine prevented him from participating in the discussions and joining in the social festivities peculiar to such occasions. As the senior fellow of the association in this city, his eminent abilities and ripe experience could have appropriately represented the surgical profession of our beautiful city.

The following is a copy of a letter from the Secretary of the association, which we are permitted to publish:

Richmond, Ind., June 4, 1893.

To W. S. Tremaine, Surgeon, U. S. A., Buffalo, N. Y.:

Dear Sir—At a meeting of the American Surgical Association, held in Buffalo, June 1, 1893, the secretary was directed to extend the sympathy of all the Fellows of the association to you, because of your illness, and to express their hope for your speedy recovery.

Very respectfully, J. R. WEIST, *Secretary.*

We are gratified to state that Dr. Tremaine's health is somewhat improved, and we have reason to expect that he has entered upon his convalescence, which, at an early day, will result in a complete restoration to his marked health. L.

Society Meetings.

The nineteenth annual meeting of the Mississippi Valley Medical Association will be held in Indianapolis, Wednesday, Thursday, and Friday, October 4, 5, and 6, 1893, under the presidency of Dr. R. Stansbury Sutton, of Pittsburg. The profession of Indian-

apolis joins in extending a cordial invitation to physicians and their families to attend the meeting. Reduced railroad rates will be provided, and also ample accommodations for the entertainment of the visitors. The Secretary, Dr. Frederick C. Woodburn, will take pleasure in giving any information in connection with the meeting. His address is No. 399 College avenue.

The section on General Surgery of the Pan-American Medical Congress extends a cordial invitation to all medical gentlemen engaged in the practice of surgery, as teachers or practitioners in any of its branches, to participate in all its meetings, and contribute papers for the general information. Such papers should conform to the requirements, as set forth in the general regulations of the Congress.

In view of the wide extent of the constituency of the Congress, and the varied human environment necessarily under observation, it is suggested that the topic of endemic or surgical diseases prevalent in each country might fittingly receive a large share of attention from the members of this section ; but carefully written papers upon *any* topic connected with surgical bacteriology, surgical pathology, or operative surgery of the regions, will be welcomed by the section.

John B. Hamilton,
Executive President.

Book Reviews.

Human Anatomy. A complete systematic treatise by various authors, including a special section on Surgical and Topographical Anatomy. Edited by Henry Morris, M. A. and M. B., London, Surgeon to and Lecturer on Surgery, formerly Lecturer on Anatomy at the Middlesex Hospital ; late Examiner in Anatomy in the University of Durham, and for the Royal College of Physicians on the Conjoint Board. Illustrated by 791 wood-cuts, 214 of which are printed in colors from drawings made expressly for this work by special artists. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1893.

The first paragraph of the author's preface to this commendable work reads as follows : "This treatise on Human Anatomy is designed for the use of students, and aims at being a complete and systematic description of every part and organ of the body, so far as it is studied in the dissecting room." Even a hasty perusal of the contents of the volume convinces the reader at

once that the author's prefatory statement is a correct one, for it is, indeed, "a complete and systematic description" of the gross anatomy of "every part and organ of the body," well worthy the careful and studious attention of practitioners as well as students proper.

The accuracy of description and thoroughness of detail in the work before us is no doubt due, in a large measure, to the fact that the editor, in preparing the book, has availed himself of the valuable services of many eminent authors who are known to have devoted special attention to the subjects allotted them. In looking over the arrangement of authors and subjects, we find many names which afford us an insight into the character of the work. The section on Osteology is attributed to J. Bland Sutton, F. R. C. S.; that on Muscles, to J. H. Davies-Colley, F. R C. S.; that on Blood Vessels and Lymphatics, to Wm. J. Walsham, F. R. C. S.; that on the Nervous System, to H. St. John Brooks, M. D.; that on the Eye, to R. Marcus Dunn, F. R. C. S.; that on the Tongue, Nose, Ear, Heart, Throat and Voice, to Arthur Hensman, F. R. C. S.; that on Organs of Digestion, to Frederick Treves, F. R. C. S.; that on the Urinary and Generative Organs, to Wm. Anderson, F. R. C. S., and that on Surgical and Topographical Anatomy, to W. H. A. Jacobsen, F. R. C. S.

A glance at these names of ten of the foremost anatomists and surgeons of the English-speaking world impresses one with the conviction that Prof. Morris knew his men, and that their combined efforts have given us a treatise on anatomy which, for a long time to come, we believe, is destined to fill an important place as a students' text-book and work of reference.

The value of the book is greatly enhanced by the numerous illustrations which adorn its pages, over 200 of which are printed in colors from drawings made expressly for this work by special artists, who have spared no pains to make each cut clear and representative of the normal structures and relations. A few of the illustrations might be made subjects of criticism, but, on the whole, they are very accurate and add greatly to the utility of the work.

A feature of the book which will undoubtedly facilitate the work of students, is found in the illustrations of the bones, where the origin of the muscles are indicated by red lines, the insertions by blue lines, and the attachment of ligaments by dotted black lnes.

So for as size, paper, and type are concerned, the book is all that could be desired, and taken all in all, the production is one which reflects much credit on both its authors and publishers.

E. C.

LECTURES ON MENTAL DISEASES, designed especially for Medical Students and General Practitioners. By HENRY PUTNAM STEARNS, A. M., M. D., Physician Superintendent of the Hartford Retreat, Lecturer on Mental Diseases in Yale University; Member of the American Medico-Psychological Association; Member of the New England Psychological Society; Honorary Member of the British Psychological Association; Honorary Member of the Boston Medico-Psychological Society; Member of the American Medical Association, etc., etc. With illustrations. Small octavo; pp. xviii.—636. Price, $3.00. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1893.

This is an excellent work prepared as a basis for instruction in mental diseases to the medical students of Yale University. Its author, Dr. Stearns, Superintendent of the Hartford Retreat, is an authority in this branch of medicine, and one of the ablest members of the American Medico-Psychological Association.

The author has divided his matter very systematically into twenty-nine sections, and ending with an appendix on extracts from the laws of the different states and territories of the United States, which relate to the general care of the insane. The first section is devoted to a review of the anatomy of the brain and spinal cord, which, though not intended to be exhaustive, is, nevertheless, concise and comprehensive. In the succeeding chapters are considered the symptoms of insanity with themes as to their production. The classification of mental diseases has always been a bone of contention, and so far every writer has his own classification. The one followed by Dr. Stearns is very practical, and indeed excellent. He classifies the different forms into—

(*a*) Symptomatological, including (1) melancholia; (2) mania; (3) primary delusional insanity; (4) folie circulaire; and (5) dementia.

(*b*) Etiological, (1) epochal (physiological), including insanity of puberty, climacteric insanity, and senile insanity; (2) sympathetic (sexual), including puerperal, masturbatic and ovarian insanity; (3) toxic, including alcoholic and syphilitic insanity; (4) neuropathic, including epileptic and hysterical insanity; (5) pathological, including general paralysis, insanity from coarse brain disease, and acute delirium; (6) other less frequent genera and

species, as phthisieal insanity, rheumatic insanity, and post-febrile insanity.

The author has no time to lose on the term paronoia. He says concerning it: "It certainly has relations neither with a symptomatological, pathologieal, plysiologieal, or etiological basis of nomenelature, nor has it even the merit of a neutral character."

The writer then deseribes fully the various forms as enumerated in the elassification, reciting eases when neeessary, and pays special attention to the treatment, whieh, by the way, is unusually sound and exhaustive. The index on the legal eare of the insane is an exeellent idea and adds mueh to the value of the book.

The typographical work is hardly what one would expeet such a book to be elothed in. It is eertainly mueh too inferior for the high eharacter of its printed matter. W. C. K.

Sexual Neurasthenia (Nervous Exhaustion). Its Hygiene, Causes, Symptoms, and Treatment, with a chapter on Diet for the Nervous. By George M. Beard, A. M., M. D., formerly Lecturer on Nervous Diseases in the University of the City of New York; Fellow of the New York Academy of Medicine; Author of Our Home Physicians, Hay Fever; one of the authors of Medical and Surgical Electricity, etc. (Posthumous manuscript.) Edited by A. D. Rockwell, A. M., M. D., Fellow of the New York Academy of Medicine, and Electro-Therapeutist to the New York State Woman's Hospital; one of the authors of Medical and Surgical Electricity, etc. Third edition. Pp., 282. Price, $2.75. New York: E. B. Treat, 5 Cooper Union. 1891.

Nervous Exhaustion (Neurasthenia.) Its Hygiene, Causes, Symptoms, and Treatment. By George M. Beard, A. M., M. D., formerly Lecturer on Nervous Diseases in the University of the City of New York; Fellow of the New York Academy of Medicine, etc. Second edition, revised and enlarged by A. D. Rockwell, A. M., M. D., Professor of Electro-Therapeutics in the New York Post-Graduate Medical School and Hospital; Fellow of the New York Academy of Medicine, etc. Pp. 254. Price, $2.75. New York: E. B. Treat, 5 Cooper Union. London: H. K. Lewis, 136 Grower street. 1892.

These two volumes on General Neurasthenia and Sexual Neurasthenia are, perhaps, the most important of the late Dr. Beard's productions.

These volumes have beeome authoritative throughout the scientifie world, as evidenced by their translations, and perusal by eontinental and English physicians. It is fortunate that Dr. Rockwell, under whose direetion these volumes are now edited, enjoyed the full eonfidenee of his teacher, thus enabling him to make such neeessary additions without injuring the original fabries.

These volumes need no special review ; they have their place in modern scientific literature.

The publishers have succeeded admirably in making these books durable as well as handsome. W. C. K.

System of Diseases of the Ear, Nose, and Throat. Edited by Charles H. Burnett, A. M., M. D., Emeritus Professor of Otology in the Philadelphia Polyclinic ; Clinical Professor of Otology in the Woman's Medical College of Pennsylvania ; Aural Surgeon to the Presbyterian Hospital, etc. Philadelphia, Pa.: Vol. I. J. B. Lippincott Company.

The reader of the above volume will be struck with its excellence. Its contents are complete, concise, and abreast of the times ; it is such a book as is needed by the student and practitioner. The authors of the various chapters are men peculiarly adapted to write on the subjects which have been assigned them. The text is well illustrated by the citation of many interesting and instructive cases.

The first part of the volume, 560 pages, is devoted to the diseases of the ear, and of this nearly a hundred pages are devoted to the anatomy and physiology of that organ, and yet the reader must feel that not too much has been said. This part of the text is well illustrated by well selected plates from the recent works of Politzer, Gruber and others.

The author of the chapter on Otitis Externa has devoted considerable space to otitis externa parasitica, which is very important in view of the intractable nature of the condition. Sir William Dalby strongly criticizes in the article on Foreign Bodies, the careless way in which practitioners, not in the habit of examining the ear, undertake the removal of foreign bodies from the external auditory canal, and states emphatically and truly that the operator, and not the foreign body, is often the cause of any harm to the ear which may result from its presence.

The presence of adenoid vegetations in the naso-pharynx is dwelt on at some length as a cause of aural troubles.

The author of the chapter on Otitismedia sums it up in these words :

> These frequent recurring acute and subacute attacks during childhood lead often to adhesions and permanent retraction of the drumhead, and in some cases the internal ear is secondarily involved. Acute catarrhal otitis media in children will be found to be due in a great number of cases, especially in those who are poorly nourished or debilitated, to the presence of adenoids in the post-nasal cavity.

Dr. Sexton's radical operation, *i. e.*, excision of the membrane and ossicles, is strongly advised for both chronic catarrhal and suppurative diseases of the middle ear. The results in both classes of cases are fully illustrated by the histories of numerous cases.

Dr. Burnett claims that no case of acute purulent inflammation will become chronic, *no matter what its cause*, if properly treated at the outset.

The second part of the volume treats of diseases of the nose and naso-pharynx.

The chapter on Anatomy is extensively illustrated by plates from Hirschfeld and Leuschka. The last chapter of the volume is devoted to diseases of the accessory sinuses of the nose, a department of rhinology which has received a great deal of attention in the last four years. Dr. Bryan has written a most excellent article on the subject, the most complete that we have seen in any text-book.

W. S. R.

Hand-Book of Insanity for Practitioners and Students. By Dr. Theodore Kirchhoff, Physician to the Schleswig Insane Asylum, and Privatdocent at the University of Kiel. Illustrated with eleven plates. Octavo volume, pp. 362. New York: William Wood & Co. 1893.

This work is divided into two parts, the first, a general part, deals in Chapter I. with the anatomical basis and the location of mental disturbances.

Chapter II. considers the causes of insanity as civilization, race, and geographical position, sex, social position, age, and heredity. Of this latter cause he says: "It is now regarded as certain that the influence of the father in heredity is more important than that of the mother." What he says of suicide in this connection is interesting; the most striking phenomenon in this respect is the inheritance of the tendency to suicide. Cases are reported in which one member of a family after another committed suicide, although living in remote parts of the world. Suicide on an hereditary basis is found even in children at the age of five years. The other chapters of this part deal with the signs and course of mental disorders and their diagnosis.

Of post-mortem findings he says: "These possess very little value as an aid in the confirmation of diagnosis in insanity."

The chapter on Treatment is good, so far as it goes, but it is lacking in all reference to the modern means of mental exercise and diversion by means of regular employment and amusements.

Part two considers the special forms of insanity, describing them very fully and well. Clearness of style is marked throughout the book, and assures for it great popularity. J. W. P.

INTERNATIONAL CLINICS. A Quarterly of Clinical Lectures on Medicine, Neurology, Pediatrics, Surgery, Genito-Urinary Surgery, Gynecology, Ophthalmology, Laryngology, Otology, and Dermatology. By professors and lecturers in the leading medical colleges of the United States, Great Britain and Canada. Edited by JOHN M. KEATING, M. D., LL. D., Colorado Springs, Col., Fellow of the College of Physicians, Philadelphia; formerly Consulting Physician for Diseases of Women to St. Agnes' Hospital, Gynecologist to St. Joseph's Hospital, Visiting Obstetrician to the Philadelphia Hospital, and Lecturer on Diseases of Women and Children, Philadelphia; Editor Cyclopedia of the Diseases of Children. Judson Daland, M. D., Philadelphia, Instructor in Clinical Medicine and Lecturer on Physical Diagnosis and Symptomatology in the University of Pennsylvania; Assistant Visiting Physician to the University Hospital; one of the Examiners of the Insane to the Philadelphia Hospital; Visiting Physician to St. Clement's Hospital, Philadelphia. J. Mitchell Bruce, M. D., F. R. C. O., London, England, Physician and Lecturer on Therapeutics at the Charing Cross Hospital. David W. Findlay, M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen; Physician to, and Lecturer on Clinical Medicine in the Aberdeen Royal Infirmary; Consulting Physician to the Royal Hospital for Diseases of the Chest, London. Volume IV. Second series. 1893. Philadelphia: J. B. Lippincott Co.

The present volume continues this interesting group of lectures much on the same lines as heretofore. The book opens with a memorial of Dr. Henry I. Bowditch, written by Frederick I. Knight. This author has done his work well. Dr. Bowditch's amiable character was of household knowledge wherever his name and fame extended, and it is delicately recorded by Dr. Knight.

One of the interesting lectures in this series is on Angina Pectoris, by Dr. Thomas J. Mays. This is a subject which demands more attention than it usually receives, and we are pleased to find that this author has thrown considerable light upon it.

In this volume Buffalo is represented by Dr. Charles Cary, who discourses upon Acute Croupous Pneumonia and Rheumatism, with Cardiac Sequelae; Dr. Matthew D. Mann, who lectures upon the After-Treatment of Laparatomies; Dr. Roswell Park, who treats of Fractures of the Cervical Vertebræ; Dr. James W. Putnam, who discourses upon Neuritis, and Dr. Charles G. Stockton, who lectures upon Gastric Ulcer. These subjects are well presented by their several authors.

This volume is illustrated with a few photographic reproduc-

tions and a number of wood-cuts, but we think it would be well for authors to pay more attention to illustrating their clinics. Where they are preserved in such substantial form, the incentive to good illustrations should be sufficiently strong to accomplish the fact.

Syphilis and the Nervous System, being a revised reprint of the Lettsomian Lectures for 1890, delivered before the Medical Society of London. By W. R. Gowers, M. D., F. R. C. P., F. R. S., Consulting Physician to University College Hospital, Physician to the National Hospital for the Paralyzed and Epileptic, etc. Price, $1.00. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1892.

These lectures have been reproduced in book-form, at the request of many of Dr. Gower's friends, and dwell upon a subject concerning which text-books have little to say.

The subject is divided into three parts: Chapter I., discussing the Ultimate Pathology of Syphilis; Chapter II., the Origin of Functional Nervous Disorders, attributed to Syphilis on Imperfect Evidence, and Chapter III., the Essential Principles Underlying the Prognosis of Syphilitic Disease of the Nervous System, and their Effect upon the Special Prognosis of the Chief Lesions. Upon the disputed relation between syphilis and tabes the author takes a strong stand in favor of such relation. He says: "Although the *method* which discloses syphilis may be open to question, I cannot but think that the observers who describe it in seventy-five or eighty per cent. *are not far from the real truth.*" The degenerative ocular palsies are also connected with syphilis, and the author states that there is also strong evidence of a similar relation in simple atrophy of the optic nerve. As to general paresis, the writer is not quite so positive.

Chronic muscular atrophy, due to degeneration of the motor cells, is considered as an occasional consequence of syphilis. The other common degenerative diseases of the spinal cord are associated with syphilis only in a very small degree.

The little volume is well worth careful study by students of neurology and syphilology, and even the general practitioner will find in it much useful information not found elsewhere. W. C. K.

Fissure of the Anus and Fistula-in-Ano. By Lewis H. Adler, Jr., M. D., Instructor in Diseases of the Rectum in the Philadelphia Polyclinic and College for Graduates in Medicine. Detroit, Mich.: Geo. S. Davis. 1892.

This little monograph, published as one of the Physicians' Leisure Library series, is full of good, sound doctrine relative to

the pathology, diagnosis, and treatment of the two very common and unpleasant maladies indicated in its title.

A study of the book reveals that it was written by one who has a practical knowledge of his subject. For this reason, as well as for others, its careful perusal will pay anyone who is called upon to manage the disorders of which it treats. It is presented to us in a neat and attractive attire, well printed on good paper, containing a number of cuts which add greatly to its value. E. C.

HISTOLOGY, PATHOLOGY, AND BACTERIOLOGY. A Manual for Students and Practitioners. By BENNETT S. BEACH, M. D., Lecturer on Histology, Pathology, and Bacteriology, New York Polyclinic. Series edited by BERN B. GALLAUDET, M. D., Demonstrator of Anatomy, College of Physicians and Surgeons, New York ; Visiting Surgeon Bellevue Hospital, New York. The Students' Quiz Series, pp. 165. Price, $1.00. Philadelphia : Lea Brothers & Co.

This little volume is exceedingly useful in colleges requiring a two-year course only, but in the progressive institutions requiring a four-year course, it is very much out of place. Such volumes only prevent the students from purchasing the authorities on the special subject, and are hence not to be commended to the general student public. The book is divided into three parts : Histology, Pathology, and Bacteriology. Questions are arranged and the answers follow. It is all that the editors claim for it—to save time for the student and busy practitioner. The presswork is very neatly done. W. C. K.

THE INTERNATIONAL MEDICAL ANNUAL and Practitioner's Index for 1893. Edited by a corps of thirty-eight department editors—European and American—specialists in their several departments. P. W. Williams, M. D., Secretary of Staff. 626 octavo pages. Illustrated. $2.75. New York : E. B. Treat, publisher, 5 Cooper Union.

The Medical Annual for 1893 has made its appearance, and from nearly every standpoint excels its predecessors. The list of contributors comprises the ablest men of America, England, and Germany, thus making the Annual thoroughly representative of the views of all schools and countries.

As usual, the dictionary of new remedies claims first attention, followed by the dictionary of new treatment. The last chapter comprises the bulk of the work, the different diseases being arranged in alphabetical order. Among some of the novelties in new treatment may be mentioned æro-urethroscopy, or the electric light examination of the inflated urethra. The article is accompanied by three beautiful full-page plates, illustrative of the conditions

present. The article on Laryngoscopy is also accompanied by three beautiful plates. The article on Sanitary Science is an important one, profusely illustrated, showing the latest improvements in sanitation. Progress in Pharmacy is ably treated by John Aulde, M. D. Then follow chapters on new instruments, new books, publishing houses, and a very complete index, making the Annual as accessible as could possibly be done.

The binding is similar to the other volumes of Treat's series, and forms a library worthy of a place in every physician's office.

W. C. K.

BOOKS RECEIVED.

Napheys' Modern Therapeutics, Medical and Surgical, including the Diseases of Women and Children. A compendium of recent formulæ and therapeutical directions from the practice of eminent contemporary physicians, American and foreign. Ninth edition, revised and enlarged. Volume II. General Surgery, Gynecology, and Obstetrics. By Allen J. Smith, M. D., Professor of Pathology, University of Texas, Galveston; late Assistant Demonstrator of Morbid Anatomy and Pathological Histology, and Lecturer on Urinology, University of Pennsylvania, and J. Aubrey Davis. M. D., Assistant Demonstrator of Obstetrics, University of Pennsylvania; Assistant Physician to Home for Crippled Children, Philadelphia. Large octavo volume. Pp. 19-1112. Price, $6. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1893.

A Hand-book of Local Therapeutics. General Surgery. By Richard H. Harte, M. D., Demonstrator of Osteology and Syndesmology, University of Pennsylvania; Surgeon to the Episcopal and St Mary's Hospitals; Consulting Surgeon to St. Timothy's Hospital. Diseases of the Skin. By Arthur Van Horlingen, M. D., Professor of Diseases of the Skin in the Philadelphia Polyclinic and College for Graduates in Medicine; late Clinical Lecturer on Dermatology in Jefferson Medical College; Dermatologist to the Howard Hospital. Diseases of the Ear and Air-passages. By Harrison Allen, M. D., Consulting Physician to the Rush Hospital for consumption; late Surgeon to the Philadelphia and St. Joseph's Hospitals. Diseases of the Eye. By George C. Harlan, M. D., Surgeon to Wills' Eye Hospital and to the Eye and Ear Department of the Pennsylvania Hospital; Emeritus Professor of Diseases of the Eye, Philadelphia Polyclinic, etc. Edited by Harrison Allen, M. D. Octavo, pp. xxvii.—505. Price, $4. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1893.

The Surgical Anatomy and Surgery of the Ear. By Albert H. Tuttle, M. D., S. B., (Harv.) of Cambridge, Mass.; Member of the Massachusetts Society; Member of the American Medical Association; Secretary of the Boston Gynecological Society; Secretary of the Cambridge Medical Improvement Society; Member of the Harvard Medical School Association; Member of the Lawrence Scientific School Association, etc. With twenty-eight original illustrations, reproduced from the writer's drawings from Nature. Physicians' Leisure Library, issued monthly; single copies, 25 cents. Detroit: George S. Davis. 1892.

Technique d'Électrothérapie. G. Gautier, J. Larat, Maloine, Editeur, 91 Boulevard Saint-Germain, Paris.

International Clinics. A Quarterly of Clinical Lectures on Medicine, Neurology, Pediatrics, Surgery, Genito-Urinary Surgery, Gynecology, Ophthalmology, Laryngology, Otology, and Dermatology. By professors and lecturers in the leading medical colleges of the United States, Great Britain, and Canada. Edited by John M. Keating, M. D., LL. D., Colorado Springs, Col.; Fellow of College of Physicians, Philadelphia; formerly Consulting Physician for Diseases of Women to St. Agnes' Hospital; Gynecologist to St. Joseph's Hospital; Visiting Obstetrician to the Philadelphia Hospital, and Lecturer on Diseases of Women and Children, Philadelphia; Editor Cyclopedia of the Diseases of Children. Judson Daland, M. D., Philadelphia; Instructor in Clinical Medicine, and Lecturer on Physical Diagnosis and Symptomatology in the University of Pennsylvania; Assistant Visiting Physician to the University Hospital; one of the Examiners of the Insane to the Philadelphia Hospital; Visiting Physician to St. Clement's Hospital, Philadelphia. J. Mitchell Bruce, M. D., F. R. C. P., London, England, Physician and Lecturer on Therapeutics at the Charing Cross Hospital. David W. Finlay, M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen; Physician to, and Lecturer on Clinical Medicine in the Aberdeen Royal Infirmary; Consulting Physician to the Royal Hospital for Diseases of the Chest, London. Volume I. Third series. Royal octavo, pp. xi.—356. Philadelphia: J. B. Lippincott Co. 1893.

Lessons in Physical Diagnosis. By Alfred M. Loomis, M. D., LL. D., Professor of the Practice of Medicine and Pathology in the University of the City of New York. Tenth edition, revised and enlarged. Octavo; illustrations, some in color; 240 pages, extra muslin; price, $3. New York: William Wood & Co.

Appendicitis and Perityphlitis. By Carlton Talamon, M. D., Physician to Tenon Hospital, Paris, France. Translated by E. P. Hurd, M. D. Physicians' Leisure Library. Single copies, 25 cents; subscription price, $2.50 a year. Detroit: George S. Davis. 1893.

A Practical Treatise on Materia Medica and Therapeutics, with Especial Reference to the Clinical Application of Drugs. By John V. Shoemaker, A. M., M. D., Professor of Materia Medica, Pharmacology, Therapeutics, and Clinical Medicine, and Clinical Professor of Diseases of the Skin in the Medico-Chirurgical College of Philadelphia; Physician to the Medico-Chirurgical Hospital; Member of the American Medical Association, of the Pennsylvania and Minnesota State Medical Societies, the American Academy of Medicine, the British Medical Association; Fellow of the Medical Society of London, etc., etc. Second edition, revised. In two royal octavo volumes. Volume I., 353 pages, devoted to Pharmacy, General Pharmacology, and Therapeutics and Remedial Agents not Properly Classed with Drugs. Volume II., 680 pages. An independent volume upon Drugs. Volume I., in cloth, $2.50 net; sheep, $3.25 net. Volume II., in cloth, $3.50 net; sheep, $4.50 net. Philadelphia: The F. A. Davis Company, publishers. 1914 and 1916 Cherry street.

The Year-Book of Treatment for 1893. A Critical Review for Practitioners of Medicine and Surgery. A series of contributions by twenty-

two writers. In one 12mo volume of 500 pages. Cloth, $1.50. Philadelphia: Lea Brothers & Co. 1893.

Transactions of the American Gynecological Society. Volume XVII. For the year 1892. Small octavo, pp. xxxix.—493. Philadelphia: William J. Dornan, printer. 1892.

Transactions of the Kentucky State Medical Society. New series. Volume I. Thirty-seventh annual meeting, held at Louisville, May 4, 5, and 6, 1892. Octavo volume, pp. x.—340. Louisville: Printed by John P. Morton & Company. 1892.

A Text-book of Practical Therapeutics, with Especial Reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By Hobart Amory Hare, M. D., B. Sc., Professor of Therapeutics and Materia Medica, in the Jefferson Medical College, of Philadelphia; Physician to St. Agnes' Hospital, and to the Jefferson Medical College Hospital; Consulting Physician to the Franklin Reformatory Home; Laureate of the Royal Academy of Medicine, in Belgium; of the Medical Society of London, etc. President of the Section of Therapeutics in the Pan-American Medical Congress. Third edition, enlarged and thoroughly revised. Octavo volume, pp. xiii—696. Philadelphia: Lea Brothers & Co. 1892.

Hand-book of Massage, by Emil Kleen, M. D., Ph. D., Practicing Physician in Carlsbad, Bohemia. Authorized translation from the Swedish. By Edward Mussey Hartwell, M. D., Ph. D., Director of Physical Training in the Public Schools of Boston; Late Associate in Johns Hopkins University. Octavo volume, pp. xiv.—316. Price, $2.75. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1892.

Recherches Cliniques and Therapeutiques sur L'Épilepsie, L'Hystérie et L'Idiotie. Compte rendu du service des enfants idiots, épileptiques, et arriérés de bicetre pendent l'année 1891. Par Bourneville, medecin de bicetre. Avec la collaboration de MM. Banzet, Finet, Ishwall, Raoult, A. Sorel et P. Sollier. Internes et anciens internes du service. Volume XII., avec fourteen figures dans le texte et two plaches. Paris: aue Bureau du Progres Medical, 14 rue des Carmes. Vve. Babé et Cie, editeurs, Place de l'École de Medecine. 1892.

A Text-book of the Theory and Practice of Medicine. By American teachers. Edited by William Pepper, M. D., LL.D., Provost and Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania. In two volumes: illustrated. Vol. I. Large octavo, pp. 909. Philadelphia: W. B. Saunders, 913 Walnut street. 1893.

System of Diseases of the Ear, Nose, and Throat. Edited by Charles H. Burnett, A. M., M. D., Emeritus Professor of Otology in the Philadelphia Polyclinic; Clinical Professor of Otology in the Woman's Medical College of Pennsylvania; Aural Surgeon to the Presbyterian Hospital, etc., Philadelphia. Vol. I. Illustrated. Philadelphia: J. B. Lippincott Co. 1893.

NOTICE TO CONTRIBUTORS.—We are glad to receive contributions from every one who knows anything of interest to the profession. Articles designed for publication in the JOURNAL should be handed in before the first day of the month. The Editors are not responsible for the views or opinions of contributors. All communications should be addressed to the Managing Editor, 284 FRANKLIN ST., BUFFALO, N. Y.

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